



**Stantec**

**Stantec Consulting Services, Inc.**

1060 Andrew Drive, Suite 140, West Chester PA 19380

December 15, 2021

Rebecca Flannery  
Pennsylvania Department of Environmental Protection  
Southeast Regional Office  
2 East Main Street  
Norristown, PA 19401

**Reference: Aboveground Storage Tank Closure Documentation**  
**51<sup>st</sup> Street Terminal**  
**Facility ID: 51-10420**

Dear Ms. Flannery:

Stantec Consulting Services, Inc. (Stantec), on behalf of PBF Logistics Products Terminals LLC (PLPT), is submitting the Aboveground Storage Tank (AST) closure documentation associated with closure of twelve ASTs at the PBF 51<sup>st</sup> Street Terminal located at 1630 South 51<sup>st</sup> Street, Philadelphia, Pennsylvania.

The AST closure sampling was performed in accordance with the applicable Pennsylvania Department of Environmental Protection (PADEP) Aboveground Storage Tank (AST) Closure Guidance documents and the *Work Plan for AST Closure Activities – Greater Than 90 Feet in Diameter* dated June 21, 2021, with the exception of tank bottom sampling conducted at AST 7551. Stantec initially attempted to collect the tank bottom samples via hand auger after removal of the tank. Upon refusal, Stantec mobilized a mini-excavator to collect the tank bottom samples and observed a compacted concrete layer at approximately two to two and a half feet below ground surface (bgs). Stantec then mobilized a full size back-hoe to attempt to collect the tank bottom samples at the prescribed depth of five feet bgs, again encountering refusal.

Stantec contacted the PADEP for guidance on collecting the tank bottom samples based on the field conditions. The PADEP agreed that collection of the tank bottom soil samples from just above the concrete layer at the location of AST 7551 was acceptable. Stantec proceeded by collecting the appropriate number of tank bottom samples between two and two and a half feet bgs.

Should you have any questions regarding the closure documentation enclosed, please contact me. My contact information is included below.



December 15, 2021  
Page 2 of 2

**Reference:      Aboveground Storage Tank Closure Documentation  
                     PBF 51<sup>st</sup> Street Terminal**

Regards,

**STANTEC CONSULTING SERVICES, INC.**

Mark Schaeffer, P.G.  
Geologist  
Phone: (610) 840-2552  
Fax: (610) 840-2501  
Mark.schaeffer@stantec.com

c.      Todd Bretz, PBF Logistics  
         David Piercey, JD2  
         Stantec Project File

**Table 1**

| <b>PADEP Tank Identification Numbers</b> | <b>Site Tank Identification Numbers</b> |
|--|---|
| 040A                                     | 2040                                    |
| 041A                                     | 941                                     |
| 042A                                     | 1043                                    |
| 044A                                     | 1044                                    |
| 045A                                     | 2045                                    |
| 047A                                     | 4847                                    |
| 048A                                     | 1248                                    |
| 049A                                     | 649                                     |
| 050A                                     | 7550                                    |
| 051A                                     | 7551                                    |
| 052A                                     | Additive                                |
| 055A                                     | 3791                                    |

## Section I



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

51-10420

Facility I.D.

51<sup>st</sup> Street Terminal

Facility Name

City of Philadelphia

Municipality

Philadelphia

County

11/30/2021

Date Prepared

John Grisi

Name of Person Submitting Report  
(Please Print)

PBF Energy

Company Name  
(If Applicable)

Terminal Manager

Title

Closure Method (Check all that apply):

- ☒ AST Removal
- ☐ AST Closure-In-Place
- ☐ AST Change-In-Service

Site Assessment Results (Check all that apply):

- ☐ No Obvious Contamination - Sample Results Meet Standards/Levels
- ☒ No Obvious Contamination - Sample Results Do Not Meet Standards/Levels
- ☐ Obvious, Localized Contamination - Sample Results Meet Standards/Levels
- ☐ Obvious, Localized Contamination - Sample Results Do Not Meet Standards/Levels
- ☐ Obvious, Extensive Contamination

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

DATE RECEIVED: \_\_\_\_\_

**ABOVEGROUND STORAGE TANK SYSTEM  
CLOSURE REPORT FORM**

Owners who are permanently closing aboveground storage tank systems may use this form to demonstrate that a storage tank system closure was performed in accordance with technical guidance document 263-4200-001 "Closure Requirements for Aboveground Storage Tank Systems". PLEASE PRINT OR TYPE. COMPLETE ALL QUESTIONS.

**SECTION I. Owner/Facility/Tank/Waste Management and Disposal Information**

1. Facility ID Number 51-10420
2. Facility Name 51<sup>st</sup> Street Terminal
3. Facility County Philadelphia
4. Facility Municipality City of Philadelphia
5. Facility Address 1630 South 51<sup>st</sup> Street, Philadelphia, Pennsylvania
6. Facility Contact Person Steve Brady
7. Facility Telephone Number ( 856 ) 687-5553
8. Owner Name PBF Logistics Products Terminas LLC
9. Owner Mailing Address 3<sup>rd</sup> Street and Billingsport Road
10. Description of Aboveground Storage Tank Systems (Complete for each tank system closed)

| DATE OF TANK SYSTEM CLOSURE (Month/Day/Year)   |   | 09- 08 -2021                        | 09- 08 -2021                        | 09- 08 -2021                        | 09- 08 -2021                        |
|--|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>Description of Aboveground Storage Tank System</b> (Complete for each tank system undergoing closure) |   |                                     |                                     |                                     |                                     |
| DEP Tank ID Number   |   | 040A                                | 041A                                | 042A                                | 044A                                |
| Total Capacity (Gallons)   |   | 778,428                             | 383,712                             | 391,146                             | 386,316                             |
| Substance(s) Stored Throughout Operating Life of Tank System (Check All That Apply)                      | <b>a. Petroleum</b>                     |                                     |                                     |                                     |                                     |
|  | Unleaded Gasoline                       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Leaded Gasoline                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Aviation Gasoline                       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Pure Ethanol                            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Blended Ethanol _____ %                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Kerosene                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Jet Fuel                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Diesel Fuel                             | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Biodiesel _____ %                       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 1                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 2                          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|  | Fuel Oil No. 4                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 5                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 6                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | New Motor Oil                           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Used Motor Oil                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Nonpetroleum Oil, Specify               |                                     |                                     |                                     |                                     |
| Other, Specify   |   |                                     |                                     |                                     |                                     |
| NOTE: If Hazardous Substance Block is Checked, Attach Safety Data Sheets (SDS)                           | <b>b. Hazardous Substance</b>           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Name of Principal CERCLA Substance      |                                     |                                     |                                     |                                     |
|  | AND Chemical Abstract Service (CAS) No. |                                     |                                     |                                     |                                     |
|  | <b>c. Unknown</b>                       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

| CLOSURE METHOD(s):  |                      | DEP Tank ID Number: | 040A                                | 041A                                | 042A                                | 044A                                |
|---|----------------------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>Partial Storage Tank System Closure</b>                  |                      |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Tank</b><br><input type="checkbox"/> N/A                 | a. Removal           |                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Piping</b><br><input type="checkbox"/> N/A               | a. Removal           |                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Dispenser</b><br><input checked="" type="checkbox"/> N/A | a. Removal           |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Other</b><br>_____                                       | a. Removal           |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

**Describe Closure Activities:**

A total of 12 regulated ASTs were decommissioned as part of the facility closure including associated piping within the tank containment. Prior to demolition activities, all ASTs and associated piping were emptied and ASTs were cleaned. All demolition was observed by a PADEP certified tank inspector. Tanks were demolished and cut into pieces for disposal as scrap metal.

Yes N/A

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) **including use of the storage tank systems:**

The facility is a former bulk fuel oil storage facility and fill station for bulk transport.

- ☒ ☐ 12. A site location and sampling map of the site, drawn to scale, is attached.
- ☐ ☒ 13. Original, color photographs of the closure process involving any excavation are attached (i.e., inside of excavation/piping runs, pit water, containment structure and foundation showing condition).
- ☒ ☐ 14. An amended "Storage Tanks Registration/Permitting Application" Form was submitted to the DEP, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.

Date: 10 / 8 / 2021

- ☒ ☐ 15. If a release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.

Date: 8 / 17 / 2021

Office: Southeast Regional

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

DATE RECEIVED: \_\_\_\_\_

**ABOVEGROUND STORAGE TANK SYSTEM  
CLOSURE REPORT FORM**

Owners who are permanently closing aboveground storage tank systems may use this form to demonstrate that a storage tank system closure was performed in accordance with technical guidance document 263-4200-001 "Closure Requirements for Aboveground Storage Tank Systems". PLEASE PRINT OR TYPE. COMPLETE ALL QUESTIONS.

**SECTION I. Owner/Facility/Tank/Waste Management and Disposal Information**

1. Facility ID Number 51-10420
2. Facility Name 51<sup>st</sup> Street Terminal
3. Facility County Philadelphia
4. Facility Municipality City of Philadelphia
5. Facility Address 1630 South 51<sup>st</sup> Street, Philadelphia, Pennsylvania
6. Facility Contact Person Steve Brady
7. Facility Telephone Number ( 856 ) 687-5553
8. Owner Name PBF Logistics Products Terminas LLC
9. Owner Mailing Address 3<sup>rd</sup> Street and Billingsport Road
10. Description of Aboveground Storage Tank Systems (Complete for each tank system closed)

| DATE OF TANK SYSTEM CLOSURE (Month/Day/Year)   |  | 09- 08 -2021                        | 09- 08 -2021                        | 09- 08 -2021                        | 09- 08 -2021                        |
|--|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>Description of Aboveground Storage Tank System</b> (Complete for each tank system undergoing closure) |  |                                     |                                     |                                     |                                     |
| DEP Tank ID Number   |  | 045A                                | 047A                                | 048A                                | 049A                                |
| Total Capacity (Gallons)   |  | 800,898                             | 1,945,734                           | 486,738                             | 235,830                             |
| Substance(s) Stored Throughout Operating Life of Tank System (Check All That Apply)                      | <b>a. Petroleum</b>  |                                     |                                     |                                     |                                     |
|  | Unleaded Gasoline  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Leaded Gasoline  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Aviation Gasoline  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Pure Ethanol   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Blended Ethanol _____ %  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Kerosene   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Jet Fuel   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Diesel Fuel  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Biodiesel _____ %  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 1   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 2   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|  | Fuel Oil No. 4   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 5   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Fuel Oil No. 6   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | New Motor Oil  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Used Motor Oil   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  | Nonpetroleum Oil, Specify  |                                     |                                     |                                     |                                     |
|  | Other, Specify   |                                     |                                     |                                     |                                     |
|  | NOTE: If Hazardous Substance Block is Checked, Attach Safety Data Sheets (SDS) | <b>b. Hazardous Substance</b>       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Name of Principal CERCLA Substance   |  |                                     |                                     |                                     |                                     |
| AND Chemical Abstract Service (CAS) No.  |  |                                     |                                     |                                     |                                     |
|  | <b>c. Unknown</b>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

| CLOSURE METHOD(s):  |                      | DEP Tank ID Number: | 045A                                | 047A                                | 048A                                | 049A                                |
|---|----------------------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>Partial Storage Tank System Closure</b>                  |                      |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Tank</b><br><input type="checkbox"/> N/A                 | a. Removal           |                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Piping</b><br><input type="checkbox"/> N/A               | a. Removal           |                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Dispenser</b><br><input checked="" type="checkbox"/> N/A | a. Removal           |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Other</b><br>_____                                       | a. Removal           |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

**Describe Closure Activities:**

A total of 12 regulated ASTs were decommissioned as part of the facility closure including all associated piping. Prior to demolition activities, all ASTs and associated piping were emptied and ASTs were cleaned. All demolition was observed by a PADEP certified tank inspector. Tanks were demolished and cut into pieces for disposal as scrap metal.

Yes N/A

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) **including use of the storage tank systems:**

The facility is a former bulk fuel oil storage facility and fill station for bulk transport.

- ☒ ☐ 12. A site location and sampling map of the site, drawn to scale, is attached.
- ☐ ☒ 13. Original, color photographs of the closure process involving any excavation are attached (i.e., inside of excavation/piping runs, pit water, containment structure and foundation showing condition).
- ☒ ☐ 14. An amended "Storage Tanks Registration/Permitting Application" Form was submitted to the DEP, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.
- Date: 10 / 8 / 2021
- ☒ ☐ 15. If a release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.

Date: 8 / 17 / 2021

Office: Southeast Regional

**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS**

**DATE RECEIVED:** \_\_\_\_\_

# ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

Owners who are permanently closing aboveground storage tank systems may use this form to demonstrate that a storage tank system closure was performed in accordance with technical guidance document 263-4200-001 "Closure Requirements for Aboveground Storage Tank Systems". PLEASE PRINT OR TYPE. COMPLETE ALL QUESTIONS.

## SECTION I. Owner/Facility/Tank/Waste Management and Disposal Information

- |  |   |
|--|---|
| 1. Facility ID Number <u>51-10420</u>  | 2. Facility Name <u>51<sup>st</sup> Street Terminal</u>     |
| 3. Facility County <u>Philadelphia</u>   | 4. Facility Municipality <u>City of Philadelphia</u>        |
| 5. Facility Address <u>1630 South 51<sup>st</sup> Street, Philadelphia, Pennsylvania</u>   |   |
| 6. Facility Contact Person <u>Steve Brady</u>  | 7. Facility Telephone Number ( <u>856</u> ) <u>687-5553</u> |
| 8. Owner Name <u>PBF Logistics Products Terminas LLC</u>                                   |   |
| 9. Owner Mailing Address <u>3<sup>rd</sup> Street and Billingsport Road</u>                |   |
| 10. Description of Aboveground Storage Tank Systems (Complete for each tank system closed) |   |

| DATE OF TANK SYSTEM CLOSURE (Month/Day/Year)  |  | 09- 08 -2021                        | 09- 08 -2021                        | 09- 08 -2021                        | 09- 08 -2021                        |
|---|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Description of Aboveground Storage Tank System (Complete for each tank system undergoing closure) |  |                                     |                                     |                                     |                                     |
| DEP Tank ID Number  |  | 050A                                | 051A                                | 052A                                | 055A                                |
| Total Capacity (Gallons)  |  | 3,016,608                           | 3,019,422                           | 2,000                               | 6,000                               |
| Substance(s) Stored Throughout Operating Life of Tank System<br>(Check All That Apply)            | <b>a. Petroleum</b>  |                                     |                                     |                                     |                                     |
|   | Unleaded Gasoline  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Leaded Gasoline  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Aviation Gasoline  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Pure Ethanol   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Blended Ethanol _____ %  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Kerosene   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Jet Fuel   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Diesel Fuel  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Biodiesel _____ %  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Fuel Oil No. 1   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Fuel Oil No. 2   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | Fuel Oil No. 4   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Fuel Oil No. 5   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Fuel Oil No. 6   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | New Motor Oil  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Used Motor Oil   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | Nonpetroleum Oil, Specify  | _____                               | _____                               | _____                               | _____                               |
|   | Other, Specify   | _____                               | _____                               | _____                               | _____                               |
|   | NOTE: If Hazardous Substance Block is Checked, Attach Safety Data Sheets (SDS) | <b>b. Hazardous Substance</b>       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Name of Principal CERCLA Substance  |  | _____                               | _____                               | _____                               | _____                               |
| AND   |  |                                     |                                     |                                     |                                     |
| Chemical Abstract Service (CAS) No.   |  | _____                               | _____                               | _____                               | _____                               |
|   | <b>c. Unknown</b>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

| CLOSURE METHOD(s):  |                      | DEP Tank ID Number: | 050A                                | 051A                                | 052A                                | 055A                                |
|---|----------------------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>Partial Storage Tank System Closure</b>                  |                      |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Tank</b><br><input type="checkbox"/> N/A                 | a. Removal           |                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Piping</b><br><input type="checkbox"/> N/A               | a. Removal           |                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Dispenser</b><br><input checked="" type="checkbox"/> N/A | a. Removal           |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Other</b><br>_____                                       | a. Removal           |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | b. Closure-in-Place  |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
|   | c. Change-in-Service |                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

**Describe Closure Activities:**

A total of 12 regulated ASTs were decommissioned as part of the facility closure including all associated piping. Prior to demolition activities, all ASTs and associated piping were emptied and ASTs were cleaned. All demolition was observed by a PADEP certified tank inspector. Tanks were demolished and cut into pieces for disposal as scrap metal.

Yes N/A

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) **including use of the storage tank systems:**

The facility is a former bulk fuel oil storage facility and fill station for bulk transport.

- ☒ ☐ 12. A site location and sampling map of the site, drawn to scale, is attached.
- ☐ ☒ 13. Original, color photographs of the closure process involving any excavation are attached (i.e., inside of excavation/piping runs, pit water, containment structure and foundation showing condition).
- ☒ ☐ 14. An amended "Storage Tanks Registration/Permitting Application" Form was submitted to the DEP, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.
- Date: 10 / 8 / 2021
- ☒ ☐ 15. If a release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.

Date: 8 / 17 / 2021

Office: Southeast Regional

Yes      N/A



16. If tanks were cleaned on-site:

a. Briefly describe the disposition of usable product: Residual product was transferred to tanks onsite or transported to a disposal facility

\_\_\_\_\_

b. Briefly describe the disposal of unusable product, sludges, sediments, and wastewater generated during cleaning. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):  
Liquids from tank cleaning activities were transported offsite to a disposal facility - Monarch Environmental, Woodstown, NJ - EPA ID NJDO11881174

\_\_\_\_\_

c. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number: \_\_\_\_\_

(2) Licensed Hazardous Waste Transporter Name and ID Number: \_\_\_\_\_

\_\_\_\_\_



17. If tanks were removed from the site for cleaning:

a. Provide the name and permit number of the processing, treatment, storage or disposal facility performing the tank cleaning:

b. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number: \_\_\_\_\_

(2) Licensed Hazardous Waste Transporter Name and ID Number: \_\_\_\_\_

\_\_\_\_\_

18. Briefly describe the disposition of tanks/piping (Attach documentation of proper disposal):

Tank and piping were cut into pieces and loaded onto trucks for transport to a recycling center

\_\_\_\_\_

\_\_\_\_\_



19. If contaminated soil is excavated:

a. Briefly describe the disposition and amount 20 (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):

Approximately 20 tons of soil was generated during the pipe cutting process. Soils were transported to Miller Environmental Group facility in Woodstown, NJ (NYD986908085)

\_\_\_\_\_

b. If contaminated soil is determined/deemed to be hazardous waste, provide:

- (1) Generator ID Number: \_\_\_\_\_  
(2) Licensed Hazardous Waste Transporter Name and ID Number: \_\_\_\_\_  
\_\_\_\_\_

Yes      N/A

- ☐      ☒ 20. Briefly describe the disposition of and amount \_\_\_\_\_ (tons) of uncontaminated soil and debris (attach analyses):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

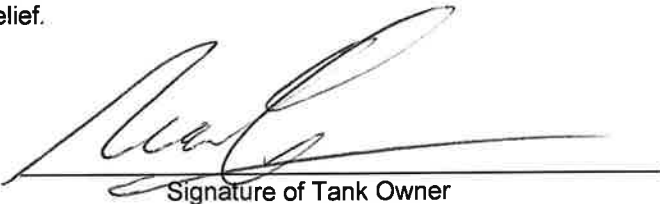
- ☐      ☒ 21. If the tanks were "Closed-in-Place" provide information below:

a. Briefly describe the tank cleaning process: \_\_\_\_\_  
\_\_\_\_\_

b. If subcontracted, name and address of company that performed the tank cleaning:  
\_\_\_\_\_  
\_\_\_\_\_

c. How were tanks marked/labeled with permanent closure date: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I, NEAL SAHNI, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the owner of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

  
Signature of Tank Owner

12/14/2021  
Date

PBF LOGISTICS PRODUCTS TERMINALS

Company Name  
(If applicable)

VICE PRESIDENT - LOGISTICS OPERATIONS

Title

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #040A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:  
The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.
2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:  
The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.
3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:  
No issues were encountered during the tank removal activities.
4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:  
The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.
- ☒ ☐ 5. If tanks were cleaned on-site:
  - a. Briefly describe the tank cleaning process: Tanks and piping were cleaned of any residual oil by 4,000 psi pressure washing and draining. Residual product and wash liquids were transported for disposal (see attached documentation).
  - b. If subcontracted, name and address of company that performed the tank cleaning:  
Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066
- ☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- ☐ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
\_\_\_\_\_  
Signature of Certified Remover

1620  
Remover Certification Number

11/18/21  
\_\_\_\_\_  
Date

1557  
\_\_\_\_\_  
Company Certification Number

JD2 Environmental, Inc.  
\_\_\_\_\_  
Company Name

800 East Washington Street  
\_\_\_\_\_  
Street

West Chester, PA 19380  
\_\_\_\_\_  
City/Town, State, Zip

(610) 430-8151  
\_\_\_\_\_  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #041A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:  
The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.
2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:  
The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.
3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:  
No issues were encountered during the tank removal activities.
4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:  
The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.
- ☒ ☐ 5. If tanks were cleaned on-site:
  - a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).
  - b. If subcontracted, name and address of company that performed the tank cleaning:  
Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066
- ☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- ☐ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.



Signature of Certified Remover

**1620**

Remover Certification Number

*11/18/21*

Date

**1557**

Company Certification Number

**JD2 Environmental, Inc.**

Company Name

**800 East Washington Street**

Street

**West Chester, PA 19380**

City/Town, State, Zip

**(610) 430-8151**

Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #042A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.



5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066



6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_



7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
\_\_\_\_\_  
Signature of Certified Remover

\_\_\_\_\_  
**1620**  
Remover Certification Number

11/18/21  
\_\_\_\_\_  
Date

\_\_\_\_\_  
**1557**  
Company Certification Number

\_\_\_\_\_  
**JD2 Environmental, Inc.**  
Company Name

\_\_\_\_\_  
**800 East Washington Street**  
Street

\_\_\_\_\_  
**West Chester, PA 19380**  
City/Town, State, Zip

\_\_\_\_\_  
**(610) 430-8151**  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #044A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.



5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066



6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_



7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
\_\_\_\_\_  
Signature of Certified Remover

1620  
Remover Certification Number

11/18/21  
\_\_\_\_\_  
Date

1557  
Company Certification Number

JD2 Environmental, Inc.  
\_\_\_\_\_  
Company Name

800 East Washington Street  
\_\_\_\_\_  
Street

West Chester, PA 19380  
\_\_\_\_\_  
City/Town, State, Zip

(610) 430-8151  
\_\_\_\_\_  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #045A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.



5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066



6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_



7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.



Signature of Certified Remover

**1620**

Remover Certification Number

11/18/21

Date

**1557**

Company Certification Number

**JD2 Environmental, Inc.**

Company Name

**800 East Washington Street**

Street

**West Chester, PA 19380**

City/Town, State, Zip

**(610) 430-8151**

Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #047A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.



5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066



6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_



7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
\_\_\_\_\_  
Signature of Certified Remover

1620  
\_\_\_\_\_  
Remover Certification Number

11/18/21  
\_\_\_\_\_  
Date

1557  
\_\_\_\_\_  
Company Certification Number

JD2 Environmental, Inc.  
\_\_\_\_\_  
Company Name

800 East Washington Street  
\_\_\_\_\_  
Street

West Chester, PA 19380  
\_\_\_\_\_  
City/Town, State, Zip

(610) 430-8151  
\_\_\_\_\_  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #048A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.

- ☒ ☐ 5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066

- ☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_

- ☐ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
Signature of Certified Remover

11/18/21  
Date

1620  
Remover Certification Number

1557  
Company Certification Number

JD2 Environmental, Inc.  
Company Name

800 East Washington Street  
Street

West Chester, PA 19380  
City/Town, State, Zip

(610) 430-8151  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #049A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.

- ☒ ☐ 5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066

- ☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_

- ☐ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
\_\_\_\_\_  
Signature of Certified Remover  
  
1620  
\_\_\_\_\_  
Remover Certification Number

11/10/21  
\_\_\_\_\_  
Date

1557  
\_\_\_\_\_  
Company Certification Number

JD2 Environmental, Inc.  
\_\_\_\_\_  
Company Name

800 East Washington Street  
\_\_\_\_\_  
Street

West Chester, PA 19380  
\_\_\_\_\_  
City/Town, State, Zip

(610) 430-8151  
\_\_\_\_\_  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #050A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.



5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066



6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_



7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
\_\_\_\_\_  
Signature of Certified Remover

11/18/21  
\_\_\_\_\_  
Date

1620  
\_\_\_\_\_  
Remover Certification Number

1557  
\_\_\_\_\_  
Company Certification Number

JD2 Environmental, Inc.  
\_\_\_\_\_  
Company Name

800 East Washington Street  
\_\_\_\_\_  
Street

West Chester, PA 19380  
\_\_\_\_\_  
City/Town, State, Zip

(610) 430-8151  
\_\_\_\_\_  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #051A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.



5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks were cleaned by 4,000 psi pressure washing. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066



6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_



7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.

  
Signature of Certified Remover

11/18/21  
Date

1620  
Remover Certification Number

1557  
Company Certification Number

JD2 Environmental, Inc.  
Company Name

800 East Washington Street  
Street

West Chester, PA 19380  
City/Town, State, Zip

(610) 430-8151  
Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #052A

Yes N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.

- ☒ ☐ 5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks and piping were cleaned of any residual oil by 4,000 psi pressure washing and draining. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066

- ☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- ☐ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.



Signature of Certified Remover

**1620**

Remover Certification Number

**11, 18, 21**

Date

**1557**

Company Certification Number

**JD2 Environmental, Inc.**

Company Name

**800 East Washington Street**

Street

**West Chester, PA 19380**

City/Town, State, Zip

**(610) 430-8151**

Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION II. Tank Handling Information

Facility ID Number 51 - 10420  
DEP Tank ID Number(s) #055A

Yes    N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

The soil that was generated during the removal process was soil that may have been impacted during the pipe cutting process. Plastic was used as barrier during the piping cutting process. The soil was scraped up to ensure that any small spills or drips that ran off the plastic that may have reached the soil during the cutting process was not left behind.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:

The piping was cleaned and then dismantled by shear or mechanical at flanges. Total length of piping from all of the tanks is estimated to be ~550 feet for the lower tank farm and ~1,500 feet for the upper tank farm.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

No issues were encountered during the tank removal activities.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

The tanks had been cleaned when they were placed into temporary closure years ago. Originally no vapors were found in any tank that required venting.

- ☒ ☐ 5. If tanks were cleaned on-site:

a. Briefly describe the tank cleaning process: Tanks and piping were cleaned of any residual oil by 4,000 psi pressure washing and draining. Residual product and wash liquids were transported for disposal (see attached documentation).

- b. If subcontracted, name and address of company that performed the tank cleaning:

Miller Environmental, 105 Riverview Avenue, Paulsboro, NJ 08066

- ☐ ☒ 6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- ☐ ☐ 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, David J. Piercey, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to  
(Print Name)  
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated  
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report  
(Section I) is true, accurate and complete to the best of my knowledge and belief.



Signature of Certified Remover

11/18/21

Date

1620

Remover Certification Number

1557

Company Certification Number

JD2 Environmental, Inc.

Company Name

800 East Washington Street

Street

West Chester, PA 19380

City/Town, State, Zip

(610) 430-8151

Phone

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 40A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ -----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 41A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ -----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 42A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 44A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 45A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 47A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 48A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ -----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 49A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ -----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 50A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 51A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

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(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 52A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ -----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

## ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

### SECTION III. Site Assessment Information

**Tank Registration # 55A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)**

**Facility ID Number 51 - 10420**

- A.** Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).  
Bedrock N/A feet below land surface      Water N/A feet below land surface
- B.** Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).  
Length of piping N/A feet
- C. TANK SYSTEM REMOVED FROM THE GROUND/SITE**
- 1). Was obvious contamination observed while excavating, sampling or removing the tank system?
- ☒ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
-----> Complete item C.2. below.
- 2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?
- ☐ YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.
- D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE**
- Was obvious contamination observed during sampling, boring or assessing water depths?
- ☐ NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.
- ☐ YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.
- E.** If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

### Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Mark Schaeffer , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn  
(Print Name)  
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Signature of Person Performing Site Assessment

11/30/2021

\_\_\_\_\_  
Date

Associate Geologist

\_\_\_\_\_  
Title of Person Performing Site Assessment

Stantec Consulting Services, Inc.

\_\_\_\_\_  
Name of Company Performing Site Assessment

610-840-2552

\_\_\_\_\_  
Telephone Number of Person Performing Site Assessment

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR | PADEP<br>NR | PADEP<br>NR | 649-P1       | 649-P2       | 649-P3       | 649-P4       | 649-P5      | 649-Center  | 941-P1       | 941-P2 / DUP-2 |              | 941-P3       | 941-P4      | 941-P5       | 941-Center   | 1043-P1      |
|-----------------------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|-------------|-------------|--------------|----------------|--------------|--------------|-------------|--------------|--------------|--------------|
|                             | DC MSC      | DC MSC      | S to G MSC  | 8/11/2021    | 8/12/2021    | 8/11/2021    | 8/12/2021    | 8/13/2021   | 9/16/2021   | 8/10/2021    | 8/10/2021      | 8/10/2021    | 8/10/2021    | 8/10/2021   | 8/10/2021    | 9/23/2021    | 8/5/2021     |
|                             | 0-2'        | 2-15'       |             | 3.0          | 3.0          | 3.0          | 3.0          | 3.0         | 5.0         | 3.0          | 2.0            |              | 3.0          | 3.0         | 3.0          | 5.0          | 3.0          |
|                             |             |             |             | 410-51060-9  | 410-51060-10 | 410-51060-8  | 410-51060-11 | 410-51318-5 | 410-55731-2 | 410-50879-4  | 410-50672-11   | 410-50672-9  | 410-50879-1  | 410-50879-2 | 410-50879-3  | 410-56522-4  | 410-50281-30 |
|                             |             |             |             |              |              |              |              |             |             |              |                |              |              |             |              |              |              |
| Ethylbenzene                | 880         | 1,000       | 70          | ND (0.00082) | ND (0.00064) | ND (0.00066) | ND (0.00061) | ND (0.037)  | ND (0.043)  | ND (0.00031) | ND (0.00093)   | ND (0.00077) | 0.00081 J    | ND (0.045)  | ND (0.00076) | ND (0.00090) | ND (0.00066) |
| 1,2-Dichloroethane          | 85          | 98          | 0.5         | 0.0014 J     | 0.0015 J     | ND (0.00099) | 0.0023 J     | ND (0.055)  | ND (0.064)  | ND (0.00046) | 0.0027 J       | 0.0020 J     | 0.0039 J     | ND (0.067)  | 0.0065 J     | ND (0.0013)  | ND (0.00098) |
| 1,3,5-Trimethylbenzene      | 4,700       | 5,400       | 93          | ND (0.0010)  | ND (0.00080) | ND (0.00083) | 0.0011 J     | ND (0.046)  | ND (0.150)  | ND (0.00038) | 0.0032 J       | 0.0014 J     | 0.0022 J     | ND (0.056)  | 0.0013 J     | ND (0.0011)  | ND (0.00082) |
| Toluene                     | 10,000      | 10,000      | 100         | 0.0082 J     | 0.0031 J     | ND (0.00099) | 0.019        | ND (0.055)  | ND (0.064)  | ND (0.00046) | 0.040          | 0.018        | 0.037        | ND (0.067)  | 0.030        | ND (0.0013)  | ND (0.00098) |
| Xylenes, Total              | 7,900       | 9,100       | 1,000       | 0.0096 J     | ND (0.0023)  | ND (0.0023)  | 0.011 J      | ND (0.130)  | ND (0.150)  | ND (0.0011)  | 0.021 J        | 0.0092 J     | 0.014 J      | ND (0.160)  | 0.0085 J     | ND (0.0031)  | ND (0.0023)  |
| Methyl tertiary butyl ether | 8,500       | 9,800       | 96          | ND (0.0010)  | ND (0.00080) | ND (0.00083) | ND (0.00076) | ND (0.046)  | ND (0.054)  | ND (0.00038) | ND (0.0012)    | ND (0.00096) | ND (0.00094) | ND (0.056)  | ND (0.00095) | ND (0.0011)  | ND (0.00082) |
| Benzene                     | 280         | 330         | 0.5         | 0.0075 J     | 0.0030 J     | ND (0.00083) | 0.013        | ND (0.046)  | ND (0.054)  | ND (0.00038) | 0.028          | 0.017        | 0.046        | ND (0.056)  | 0.038        | ND (0.0011)  | 0.0016 J     |
| Napthalene                  | 66          | 77          | 25          | ND (0.0041)  | ND (0.0032)  | ND (0.0033)  | ND (0.0030)  | ND (0.180)  | ND (0.210)  | ND (0.0015)  | ND (0.0047)    | ND (0.0038)  | ND (0.0038)  | ND (0.220)  | ND (0.0038)  | ND (0.0045)  | ND (0.0033)  |
| 1,2,4-Trimethylbenzene      | 4,700       | 5,400       | 300         | 0.0011 J     | ND (0.00080) | ND (0.00083) | 0.0018 J     | ND (0.046)  | ND (0.054)  | ND (0.00038) | 0.0058 J       | 0.0022 J     | 0.0019 J     | ND (0.056)  | 0.0014 J     | ND (0.0011)  | ND (0.00082) |
| Isopropylbenzene            | 10,000      | 10,000      | 2,500       | ND (0.00082) | ND (0.00064) | ND (0.00066) | ND (0.00061) | ND (0.037)  | ND (0.043)  | ND (0.00031) | ND (0.00093)   | ND (0.00077) | ND (0.00075) | ND (0.045)  | ND (0.00076) | ND (0.00090) | ND (0.00066) |
| 1,2,-Dibromoethane          | 3.7         | 4.2         | 0.005       | ND (0.00082) | ND (0.00064) | ND (0.00066) | ND (0.00061) | ND (0.037)  | ND (0.043)  | ND (0.00031) | ND (0.00093)   | ND (0.00077) | ND (0.00075) | ND (0.045)  | ND (0.00076) | ND (0.00090) | ND (0.00066) |
|                             |             |             |             |              |              |              |              |             |             |              |                |              |              |             |              |              |              |
| Anthracene                  | 190,000     | 190,000     | 350         | ND (0.0052)  | 0.042        | 0.086        | 0.011 J      | ND (0.0042) | 0.037       | ND (0.0039)  | 0.037          | 0.023        | ND (0.0044)  | ND (0.0041) | ND (0.0042)  | 45           | 0.066        |
| Benzo(a)anthracene          | 130         | 190,000     | 340         | 0.020 J      | 0.83         | 0.24         | 0.024        | 0.010 J     | 0.092       | 0.0046 J     | 0.081          | 0.052        | 0.0047 J     | 0.0059 J    | 0.0066 J     | 49           | 0.210        |
| Benzo(a)pyrene              | 91          | 190,000     | 46          | 0.025 J      | 0.92         | 0.19         | 0.028        | 0.011 J     | 0.083       | 0.0040 J     | 0.120          | 0.075        | ND (0.0044)  | 0.0064 J    | 0.0068 J     | 35           | 0.160        |
| Benzo(b)fluoranthene        | 76          | 190,000     | 170         | 0.035        | 1.1          | 0.22         | 0.05         | 0.020 J     | 0.098       | 0.0053 J     | 0.170          | 0.100        | 0.0064 J     | 0.0095 J    | 0.011 J      | 38           | 0.190        |
| Benzo(g,h,i)perylene        | 190,000     | 190,000     | 180         | 0.032        | 0.6          | 0.13         | 0.031        | 0.015 J     | 0.048       | ND (0.0039)  | 0.130          | 0.087        | ND (0.0044)  | 0.0075 J    | 0.0093 J     | 17           | 0.110        |
| Chrysene                    | 760         | 190,000     | 230         | 0.027        | 0.78         | 0.23         | 0.04         | 0.015 J     | 0.098       | 0.0048 J     | 0.100          | 0.063        | 0.0085 J     | 0.012 J     | 0.016 J      | 41           | 0.200        |
| Fluorene                    | 130,000     | 190,000     | 3,800       | ND (0.0052)  | 0.0065 J     | 0.024        | ND (0.0044)  | ND (0.0042) | 0.015 J     | ND (0.0039)  | 0.0074 J       | ND (0.0046)  | ND (0.0044)  | ND (0.0041) | ND (0.0042)  | 24           | 0.028        |
| Phenanthrene                | 190,000     | 190,000     | 10,000      | 0.031        | 0.075        | 0.36         | 0.041        | 0.017 J     | 0.15        | ND (0.0047)  | 0.054          | 0.047        | 0.027        | 0.023       | 0.023        | 150          | 0.280        |
| Pyrene                      | 96,000      | 190,000     | 2,200       | 0.031        | 1.3          | 0.46         | 0.042        | 0.016 J     | 0.18        | ND (0.0039)  | 0.097          | 0.065        | 0.012        | 0.0087 J    | 0.012 J      | 89           | 0.350        |
|                             |             |             |             |              |              |              |              |             |             |              |                |              |              |             |              |              |              |
| Lead                        | 1,000       | 190,000     | 450         | 83           | 46           | 230          | 25           | 270         | 230         | 7.9          | 130            | 78           | 610          | 270         | 37           | 560          | 87           |

PADEP - Pennsylvania Department of Environmetnal Protection  
NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | 1043-P2<br>8/5/2021<br>3.0<br>410-50151-9 | 1043-P3 / DUP-2<br>8/5/2021<br>3.0<br>410-50151-6 |              | 1043-P4<br>8/5/2021<br>3.0<br>410-50281-29 | 1043-P5<br>8/5/2021<br>3.0<br>410-50281-28 | 1043-Center<br>9/16/2021<br>5.0<br>410-55731-3 | 1044-P1<br>8/12/2021<br>3.0<br>410-51318-3 | 1044-P2<br>8/13/2021<br>3.0<br>410-51318-6 | 1044-P3<br>8/12/2021<br>3.0<br>410-51318-4 | 1044-P4<br>8/5/2021<br>3.0<br>410-50281-12 | 1044-P5<br>8/11/2021<br>3.0<br>410-51060-7 | 1044-Center<br>9/16/2021<br>5.0<br>410-55731-1 | 1248-P1<br>8/4/2021<br>3.0<br>410-50151-18 | 1248-P2<br>8/4/2021<br>3.0<br>410-50151-15 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|---|---|--------------|--|--|--|--|--|--|--|--|--|--|--|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00058)                              | ND (0.00062)                                      | ND (0.00062) | ND (0.00070)                               | ND (0.00076)                               | ND (0.038)                                     | ND (0.036)                                 | ND (0.00057)                               | ND (0.00060)                               | ND (0.00054)                               | ND (0.00080)                               | ND (0.039)                                     | ND (0.00046)                               | ND (0.00044)                               |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.00088)                              | ND (0.00093)                                      | ND (0.00093) | ND (0.001)                                 | ND (0.0011)                                | ND (0.057)                                     | ND (0.053)                                 | ND (0.00085)                               | ND (0.00090)                               | ND (0.00080)                               | ND (0.0012)                                | ND (0.059)                                     | ND (0.00069)                               | ND (0.00066)                               |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.00073)                              | ND (0.00078)                                      | ND (0.00077) | ND (0.00087)                               | ND (0.00095)                               | ND (0.047)                                     | ND (0.045)                                 | ND (0.00071)                               | ND (0.00075)                               | ND (0.00067)                               | ND (0.0010)                                | ND (0.049)                                     | ND (0.00058)                               | ND (0.00055)                               |
| Toluene                     | 10,000                        | 10,000                         | 100                       | 0.00094 J                                 | ND (0.00093)                                      | ND (0.00093) | ND (0.001)                                 | ND (0.0011)                                | ND (0.057)                                     | ND (0.053)                                 | 0.0015 J                                   | ND (0.00090)                               | ND (0.00080)                               | ND (0.0012)                                | ND (0.059)                                     | ND (0.00069)                               | ND (0.00066)                               |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.002)                                | ND (0.0022)                                       | ND (0.0022)  | ND (0.0024)                                | ND (0.0027)                                | ND (0.130)                                     | ND (0.120)                                 | ND (0.0020)                                | ND (0.0021)                                | ND (0.0019)                                | ND (0.0028)                                | ND (0.140)                                     | ND (0.0016)                                | ND (0.0015)                                |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00073)                              | ND (0.00078)                                      | ND (0.00077) | ND (0.00087)                               | ND (0.00095)                               | ND (0.047)                                     | ND (0.045)                                 | ND (0.00071)                               | ND (0.00075)                               | ND (0.00067)                               | ND (0.0010)                                | ND (0.049)                                     | ND (0.00058)                               | ND (0.00055)                               |
| Benzene                     | 280                           | 330                            | 0.5                       | 0.0019 J                                  | ND (0.00078)                                      | ND (0.00077) | 0.0026 J                                   | 0.0013 J                                   | ND (0.047)                                     | ND (0.045)                                 | 0.0036 J                                   | ND (0.00075)                               | 0.0013 J                                   | ND (0.0010)                                | ND (0.049)                                     | ND (0.00058)                               | ND (0.00055)                               |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0029)                               | ND (0.0031)                                       | ND (0.0031)  | ND (0.0035)                                | ND (0.0038)                                | ND (0.190)                                     | ND (0.180)                                 | ND (0.0028)                                | ND (0.0030)                                | ND (0.0027)                                | ND (0.0040)                                | 0.55   | ND (0.0023)                                | ND (0.0022)                                |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | ND (0.00073)                              | ND (0.00078)                                      | ND (0.00077) | ND (0.00087)                               | ND (0.00095)                               | ND (0.047)                                     | ND 90.045)                                 | ND (0.00071)                               | ND (0.00075)                               | ND (0.00067)                               | ND (0.0010)                                | ND (0.049)                                     | ND (0.00058)                               | ND (0.00055)                               |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00058)                              | ND (0.00062)                                      | ND (0.00062) | ND (0.00070)                               | ND (0.00076)                               | ND (0.038)                                     | ND (0.036)                                 | ND (0.00057)                               | ND (0.00060)                               | ND (0.00054)                               | ND (0.00080)                               | ND (0.039)                                     | ND (0.00046)                               | ND (0.00044)                               |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00058)                              | ND (0.00062)                                      | ND (0.00062) | ND (0.00070)                               | ND (0.00076)                               | ND (0.038)                                     | ND (0.036)                                 | ND (0.00057)                               | ND (0.00060)                               | ND (0.00054)                               | ND (0.00080)                               | ND (0.039)                                     | ND (0.00046)                               | ND (0.00044)                               |
|                             |                               |                                |                           |   |   |              |  |  |  |  |  |  |  |  |  |  |  |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | 0.038                                     | ND (0.0042)                                       | ND (0.0042)  | 0.420                                      | 0.110                                      | ND (0.0041)                                    | 0.0095 J                                   | 0.028                                      | 0.05                                       | 0.064                                      | 0.039                                      | 0.014 J  | ND (0.0039)                                | ND (0.0036)                                |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.026                                     | ND (0.0042)                                       | ND (0.0042)  | 3.10                                       | 0.290                                      | ND (0.0041)                                    | 0.018 J                                    | 0.18                                       | 0.18                                       | 0.120                                      | 0.017 J                                    | 0.075  | ND (0.0039)                                | ND (0.0036)                                |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.031                                     | ND (0.0042)                                       | ND (0.0042)  | 2.70                                       | 0.200                                      | ND (0.0041)                                    | 0.018 J                                    | 0.2  | 0.2  | 0.095                                      | 0.024                                      | 0.13   | ND (0.0039)                                | ND (0.0036)                                |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.049                                     | 0.0056 J  | 0.0049 J     | 2.80                                       | 0.300                                      | 0.0042 J                                       | 0.025                                      | 0.23                                       | 0.33                                       | 0.120                                      | 0.033                                      | 0.16   | ND (0.0039)                                | ND (0.0036)                                |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.032                                     | ND (0.0042)                                       | ND (0.0042)  | 1.70                                       | 0.150                                      | ND (0.0041)                                    | 0.017 J                                    | 0.16                                       | 0.22                                       | 0.077                                      | 0.022 J                                    | 0.098  | ND (0.0039)                                | ND (0.0036)                                |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.039                                     | 0.0076 J  | ND (0.0042)  | 2.60                                       | 0.280                                      | ND (0.0041)                                    | 0.020 J                                    | 0.18                                       | 0.25                                       | 0.120                                      | 0.028                                      | 0.097  | ND (0.0039)                                | ND (0.0036)                                |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | 0.0077 J                                  | ND (0.0042)                                       | ND (0.0042)  | 0.054                                      | 0.043                                      | ND (0.0041)                                    | ND (0.0042)                                | 0.0085 J                                   | ND (0.0050)                                | 0.370                                      | ND (0.0048)                                | ND (0.0048)                                    | ND (0.0039)                                | ND (0.0036)                                |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.100                                     | 0.062   | ND (0.0042)  | 0.820                                      | 0.470                                      | 0.1  | 0.028                                      | 0.11                                       | 0.16                                       | 0.099                                      | 0.036                                      | 0.075  | ND (0.0047)                                | ND (0.0043)                                |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.056                                     | 0.0084 J  | ND (0.0042)  | 4.10                                       | 0.470                                      | ND (0.0041)                                    | 0.025                                      | 0.2  | 0.32                                       | 0.150                                      | 0.034                                      | 0.079  | ND (0.0039)                                | ND (0.0036)                                |
|                             |                               |                                |                           |   |   |              |  |  |  |  |  |  |  |  |  |  |  |
| Lead                        | 1,000                         | 190,000                        | 450                       | 490                                       | 9.7   | 120          | 880  | 560  | 23   | 90   | 380  | 810  | 2100                                       | 120  | 990  | 17   | 13   |

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NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | DUP-1<br>8/4/2021 | 1248-P3<br>8/4/2021 | 1248-P4<br>8/4/2021 | 1248-P5<br>8/4/2021 | 1248-Center<br>9/16/2021 | DUP-8<br>9/16/2021 | 2040-P1<br>8/11/2021 | 2040-P2<br>8/11/2011 | 2040-P3<br>8/11/2011 | 2040-P4<br>8/11/2011 | 2040-P5<br>8/11/2011 | 2040-Center<br>9/23/2021 | 2045-P1<br>8/10/2021 | 2045-P2<br>8/13/2021 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|-------------------|---------------------|---------------------|---------------------|--------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------|----------------------|----------------------|
|                             |                               |                                |                           | 410-50151-16      | 410-50151-14        | 410-50151-13        | 410-50151-11        | 410-55731-4              | 410-55731-5        | 410-50879-23         | 410-50879-16         | 410-50879-17         | 410-50879-18         | 410-50879-19         | 410-56522-2              | 410-50879-8          | 410-51318-7          |
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00047)      | ND (0.00046)        | ND (0.00049)        | ND (0.00023)        | ND (0.030)               | ND (0.031)         | ND (0.00068)         | ND (0.00057)         | ND (0.00042)         | ND (0.00041)         | ND (0.00076)         | ND (0.00075)             | 0.00073 J            | ND (0.00056)         |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.00071)      | ND (0.00069)        | ND (0.00074)        | ND (0.00035)        | ND (0.045)               | ND (0.047)         | ND (0.0010)          | ND (0.00086)         | ND (0.00062)         | ND (0.00061)         | ND (0.0011)          | ND (0.0011)              | ND (0.00090)         | ND (0.00084)         |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.00059)      | ND (0.00057)        | ND (0.00062)        | ND (0.00029)        | ND (0.037)               | ND (0.039)         | ND (0.00086)         | ND (0.00071)         | ND (0.00052)         | ND (0.00051)         | ND (0.00094)         | ND (0.00094)             | ND (0.00075)         | ND (0.00070)         |
| Toluene                     | 10,000                        | 10,000                         | 100                       | ND (0.00071)      | ND (0.00069)        | ND (0.00074)        | ND (0.00035)        | ND (0.045)               | ND (0.047)         | ND (0.0010)          | 0.00095 J            | ND (0.00062)         | ND (0.00061)         | 0.0051 J             | ND (0.0011)              | 0.0012 J             | 0.0033 J             |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.0017)       | ND (0.0016)         | ND (0.0017)         | ND (0.00081)        | ND (0.100)               | ND (0.110)         | ND (0.0024)          | ND (0.0020)          | ND (0.0015)          | ND (0.0014)          | ND (0.0026)          | ND (0.0026)              | 0.0027 J             | ND (0.0020)          |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00059)      | ND (0.00057)        | ND (0.00062)        | ND (0.00029)        | ND (0.037)               | ND (0.039)         | ND (0.00086)         | ND (0.00071)         | ND (0.00052)         | ND (0.00051)         | ND (0.00094)         | ND (0.00094)             | ND (0.00075)         | ND (0.00070)         |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.00059)      | ND (0.00057)        | ND (0.00062)        | ND (0.00029)        | ND (0.037)               | ND (0.039)         | ND (0.00086)         | 0.0013 J             | ND (0.00052)         | ND (0.00051)         | 0.0045 J             | ND (0.00094)             | 0.011                | 0.0014 J             |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0024)       | ND (0.0023)         | ND (0.0025)         | ND (0.120)          | ND (0.150)               | ND (0.160)         | ND (0.0034)          | ND (0.0029)          | ND (0.0021)          | ND (0.0020)          | ND (0.0038)          | ND (0.0038)              | ND (0.0030)          | ND (0.0028)          |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | ND (0.00059)      | ND (0.00057)        | ND (0.0062)         | ND (0.029)          | ND (0.037)               | ND (0.039)         | ND (0.00086)         | ND (0.00071)         | ND (0.00052)         | ND (0.00051)         | ND (0.00094)         | ND (0.00094)             | ND (0.00075)         | 0.0012 J             |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00047)      | ND (0.00046)        | ND (0.00049)        | ND (0.023)          | ND (0.030)               | ND (0.031)         | ND (0.00068)         | ND (0.00057)         | ND (0.00042)         | ND (0.00041)         | ND (0.00076)         | ND (0.00075)             | ND (000060)          | ND (0.00056)         |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00047)      | ND (0.00046)        | ND (0.00049)        | ND (0.023)          | ND (0.030)               | ND (0.031)         | ND (0.00068)         | ND (0.00057)         | ND (0.00042)         | ND (0.00041)         | ND (0.00076)         | ND (0.00075)             | ND (0.00060)         | ND (0.00056)         |
|                             |                               |                                |                           |                   |                     |                     |                     |                          |                    |                      |                      |                      |                      |                      |                          |                      |                      |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.011 J              | ND (0.0046)          | 0.014 J              | 0.0047 J             | 0.022                | ND (0.0051)              | 0.018 J              | 0.0087 J             |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.0058 J             | 0.0071 J             | 0.040                | 0.016 J              | 0.026                | 0.017 J                  | ND (0.0045)          | 0.0085 J             |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.0056 J             | 0.0086 J             | 0.033                | 0.016 J              | 0.016 J              | 0.017 J                  | 0.0045 J             | 0.013 J              |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.0079 J             | 0.0089 J             | 0.049                | 0.022                | 0.036                | 0.018 J                  | 0.0053 J             | 0.021 J              |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.0083 J             | 0.0085 J             | 0.028                | 0.016 J              | 0.019 J              | 0.0086 J                 | 0.0089 J             | 0.013 J              |
| Chrysene                    | 760                           | 190,000                        | 230                       | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.0075 J             | 0.0081 J             | 0.046                | 0.027                | 0.120                | 35                       | 0.0053 J             | 0.019 J              |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | ND (0.0047)          | ND (0.0046)          | 0.0062 J             | ND (0.0039)          | 0.016 J              | ND (0.0051)              | ND (0.0045)          | 0.03                 |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | ND (0.0045)       | ND (0.0047)         | ND (0.0046)         | ND (0.0045)         | ND (0.0055)              | ND (0.0056)        | 0.026                | 0.0060 J             | 0.066                | 0.055                | 0.120                | 0.017 J                  | 0.023                | 0.064                |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | ND (0.0038)       | ND (0.0039)         | ND (0.0038)         | ND (0.0037)         | ND (0.0045)              | ND (0.0047)        | 0.0079 J             | ND (0.0046)          | 0.070                | 0.022                | 0.041                | 0.022 J                  | ND (0.0045)          | 0.03                 |
|                             |                               |                                |                           |                   |                     |                     |                     |                          |                    |                      |                      |                      |                      |                      |                          |                      |                      |
| Lead                        | 1,000                         | 190,000                        | 450                       | 15                | 12                  | 17                  | 9.1                 | 19                       | 16                 | 250                  | 1,200                | 13                   | 40                   | 21                   | 24                       | 100                  | 29                   |

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AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | 2045-P3<br>8/10/2021<br>3.0<br>410-50879-7 | 2045-P4<br>8/13/2021<br>3.0<br>410-51318-8 | 2045-P5<br>8/13/2021<br>3.0<br>410-51318-9 | 2045-Center<br>9/23/2021<br>5.0<br>410-56522-3 | 4847-P1<br>8/5/2021<br>3.0<br>410-50151-4 | 4847-P2<br>8/5/2021<br>3.0<br>410-50151-3 | 4847-P3<br>8/5/2021<br>3.0<br>410-50151-5 | 4847-P4<br>8/11/2021<br>3.0<br>410-50879-22 | 4847-P5<br>9/23/2021<br>3.0<br>410-56522-1 | 4847-P6<br>8/5/2021<br>3.0<br>410-50151-1 | 4847-Center<br>9/16/2021<br>5.0<br>410-55731-7 | 4847-East<br>9/16/2021<br>5.0<br>410-55731-6 | 4847-West<br>9/16/2021<br>5.0<br>410-55731-8 | 7550-P1<br>9/23/2021<br>3.0<br>410-56522-7 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|--|--|--|--|---|---|---|---|--|---|--|--|--|--|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00082)                               | 0.066 J                                    | 0.67                                       | ND (0.00065)                                   | ND (0.00045)                              | ND (0.00041)                              | ND (0.00039)                              | ND (0.00041)                                | ND (0.00067)                               | ND (0.00052)                              | ND (0.027)                                     | ND (0.00040)                                 | ND (0.00051)                                 | 0.0052 J                                   |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.0012)                                | ND (0.082)                                 | ND (0.071)                                 | ND (0.00098)                                   | ND (0.00068)                              | ND (0.00061)                              | ND (0.00059)                              | ND (0.00062)                                | ND (0.0010)                                | ND (0.00077)                              | ND (0.040)                                     | ND (0.00059)                                 | ND (0.00076)                                 | ND (0.0011)                                |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.0010)                                | 0.230 J                                    | 15   | ND (0.00082)                                   | ND (0.00057)                              | ND (0.00051)                              | ND (0.00049)                              | ND (0.00052)                                | ND (0.00084)                               | ND (0.00064)                              | ND (0.033)                                     | ND (0.00050)                                 | ND (0.00064)                                 | 0.23                                       |
| Toluene                     | 10,000                        | 10,000                         | 100                       | 0.0020 J                                   | ND (0.082)                                 | ND (0.071)                                 | ND (0.00098)                                   | ND (0.00068)                              | ND (0.00061)                              | ND (0.00059)                              | ND (0.00062)                                | ND (0.0010)                                | ND (0.00077)                              | ND (0.040)                                     | ND (0.00059)                                 | ND (0.00076)                                 | 0.012                                      |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.0029)                                | 0.370 J                                    | 6.8  | ND (0.0023)                                    | ND (0.0016)                               | ND (0.0014)                               | ND (0.0014)                               | ND (0.0014)                                 | ND (0.0024)                                | ND (0.0018)                               | ND (0.093)                                     | ND (0.0014)                                  | ND (0.0018)                                  | 0.099                                      |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.0010)                                | ND (0.069)                                 | ND (0.059)                                 | ND (0.00082)                                   | ND (0.00057)                              | ND (0.00051)                              | ND (0.00049)                              | ND (0.00052)                                | ND (0.00084)                               | ND (0.00064)                              | ND (0.033)                                     | ND (0.00050)                                 | ND (0.00064)                                 | ND (0.00092)                               |
| Benzene                     | 280                           | 330                            | 0.5                       | 0.0075 J                                   | ND (0.069)                                 | ND (0.059)                                 | ND (0.00082)                                   | ND (0.00057)                              | ND (0.00051)                              | ND (0.00049)                              | ND (0.00052)                                | ND (0.00084)                               | ND (0.00064)                              | ND (0.033)                                     | ND (0.00050)                                 | ND (0.00064)                                 | 0.0029 J                                   |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0041)                                | ND (0.270)                                 | 13   | ND (0.0033)                                    | ND (0.0023)                               | ND (0.0020)                               | ND (0.0020)                               | ND (0.0021)                                 | ND (0.0034)                                | ND (0.0026)                               | ND (0.130)                                     | ND (0.0020)                                  | ND (0.0025)                                  | 0.054                                      |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | ND (0.0010)                                | 0.520 J                                    | 1.5  | ND (0.00082)                                   | ND (0.00057)                              | ND (0.00051)                              | ND (0.00049)                              | ND (0.00052)                                | ND (0.00084)                               | ND (0.00064)                              | ND (0.033)                                     | ND (0.00050)                                 | ND (0.00064)                                 | 0.35                                       |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00082)                               | ND (0.055)                                 | ND (0.047)                                 | ND (0.00065)                                   | ND (0.00045)                              | ND (0.00041)                              | ND (0.0039)                               | ND (0.00041)                                | ND (0.00067)                               | ND (0.00052)                              | ND (0.027)                                     | ND (0.00040)                                 | ND (0.00051)                                 | 0.0051 J                                   |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00082)                               | ND (0.055)                                 | ND (0.047)                                 | ND (0.00065)                                   | ND (0.00045)                              | ND (0.00041)                              | ND (0.00039)                              | ND (0.00041)                                | ND (0.00067)                               | ND (0.00052)                              | ND (0.027)                                     | ND (0.00040)                                 | ND (0.00051)                                 | 0.00089 J                                  |
|                             |                               |                                |                           |  |  |  |  |   |   |   |   |  |   |  |  |  |  |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.0046)                                | ND (0.0061)                                | ND (0.0057)                                | ND (0.0049)                                    | ND (0.0037)                               | ND (0.0041)                               | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 0.23                                       |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.0056 J                                   | 0.0099 J                                   | 0.011 J                                    | ND (0.0049)                                    | 0.0048 J                                  | 0.0058 J                                  | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 0.97                                       |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.0075 J                                   | ND (0.0061)                                | ND (0.0057)                                | ND (0.0049)                                    | 0.0044 J                                  | 0.0061 J                                  | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 1.2  |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.0057 J                                   | 0.0096 J                                   | 0.0080 J                                   | ND (0.0049)                                    | 0.0054 J                                  | 0.0064 J                                  | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 1.3  |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.0059 J                                   | 0.0083 J                                   | ND (0.0057)                                | ND (0.0049)                                    | ND (0.0037)                               | ND (0.0041)                               | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 0.84                                       |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.0093 J                                   | 0.033                                      | 0.037                                      | ND (0.0049)                                    | 0.0046 J                                  | 0.0064 J                                  | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 0.92                                       |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | ND (0.0046)                                | ND (0.0061)                                | 0.52                                       | ND (0.0049)                                    | ND (0.0037)                               | 0.0051 J                                  | ND (0.0037)                               | ND (0.0044)                                 | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 0.093                                      |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.028                                      | ND (0.073)                                 | 5  | 0.0074 J                                       | ND (0.0045)                               | 0.012 J                                   | ND (0.0045)                               | ND (0.0044)                                 | ND (0.0057)                                | ND (0.0045)                               | ND (0.0046)                                    | ND (0.0047)                                  | ND (0.0045)                                  | 0.78                                       |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | ND (0.0046)                                | 0.41                                       | 0.47                                       | ND (0.0049)                                    | 0.0068 J                                  | 0.014 J                                   | ND (0.0037)                               | 0.0051 J                                    | ND (0.0048)                                | ND (0.0045)                               | ND (0.0039)                                    | ND (0.0039)                                  | ND (0.0037)                                  | 1.2  |
|                             |                               |                                |                           |  |  |  |  |   |   |   |   |  |   |  |  |  |  |
| Lead                        | 1,000                         | 190,000                        | 450                       | 14   | 75   | 210  | 6.7  | 15  | 15  | 8.5                                       | 3.6   | 12   | 2.9                                       | 12   | 17   | 18   | 690  |

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AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | 7550-P2<br>9/23/2021<br>3.0<br>410-56522-6 | 7550-P3<br>9/23/2021<br>3.0<br>410-56522-10 | 7550-P4<br>9/23/2021<br>3.0<br>410-56522-13 | 7550-P5<br>9/23/2021<br>3.0<br>410-56522-14 | 7550-P6<br>9/23/2021<br>3.0<br>410-56522-9 | 7550-P7<br>9/23/2021<br>3.0<br>410-56522-8 | 7550-Center<br>9/23/2021<br>5.0<br>410-56522-5 | 7550-North<br>9/29/2021<br>2.5<br>410-57140-1 | 7550-South<br>9/29/2021<br>2.3<br>410-57140-2 | 7550-East<br>9/29/2021<br>2.0<br>410-57140-3 | 7551-P1<br>8/6/2021<br>3.0<br>410-50281-4 | 7551-P2<br>8/6/2021<br>3.0<br>410-50281-6 | 7551-P3<br>8/6/2021<br>3.0<br>410-50281-9 | 7551-P4<br>8/6/2021<br>3.0<br>410-50503-2 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|--|---|---|---|--|--|--|---|---|--|---|---|---|---|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00056)                               | ND (0.00050)                                | ND (0.032)                                  | ND (0.00069)                                | ND (0.00077)                               | ND (0.00060)                               | ND (0.0073)                                    | ND (0.00034)                                  | ND (0.00044)                                  | ND (0.00034)                                 | ND (0.00060)                              | ND (0.00054)                              | ND (0.00050)                              | ND (0.00037)                              |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.00084)                               | ND (0.00075)                                | ND (0.048)                                  | ND (0.0010)                                 | ND (0.0012)                                | ND (0.00090)                               | ND (0.0073)                                    | ND (0.00051)                                  | ND (0.00066)                                  | ND (0.00052)                                 | ND (0.00090)                              | ND (0.00082)                              | ND (0.00075)                              | ND (0.00055)                              |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | 0.0058 J                                   | ND (0.00082)                                | 0.063 J                                     | 0.016                                       | 0.0038 J                                   | 0.0041 J                                   | 0.0023 J                                       | 0.00085 J                                     | ND (0.00055)                                  | ND (0.00043)                                 | 0.0033 J                                  | ND (0.00068)                              | 0.00071 J                                 | ND (0.00046)                              |
| Toluene                     | 10,000                        | 10,000                         | 100                       | 0.0013 J                                   | 0.00077 J                                   | 0.059 J                                     | 0.0017 J                                    | 0.0017 J                                   | 0.0022 J                                   | ND (0.0073)                                    | ND (0.00051)                                  | ND (0.00066)                                  | ND (0.00052)                                 | 0.0019 J                                  | ND (0.00082)                              | 0.00084 J                                 | ND (0.00055)                              |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | 0.0042 J                                   | ND (0.0017)                                 | 0.180 J                                     | 0.018                                       | ND (0.0027)                                | 0.0037 J                                   | 15   | ND (0.0012)                                   | ND (0.0015)                                   | ND (0.0012)                                  | 0.0031 J                                  | ND (0.0019)                               | ND (0.0018)                               | ND (0.0013)                               |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00070)                               | ND (0.00062)                                | ND (0.040)                                  | ND (0.00086)                                | ND (0.00096)                               | ND (0.00075)                               | ND (0.0073)                                    | ND (0.00042)                                  | ND (0.00055)                                  | ND (0.00043)                                 | ND (0.00075)                              | ND (0.00068)                              | ND (0.00063)                              | ND (0.00046)                              |
| Benzene                     | 280                           | 330                            | 0.5                       | 0.0011 J                                   | 0.00074 J                                   | ND (0.040)                                  | 0.0025 J                                    | 0.00098 J                                  | 0.0019 J                                   | ND (0.0073)                                    | ND (0.00042)                                  | ND (0.00055)                                  | ND (0.00043)                                 | 0.0011 J                                  | ND (0.00068)                              | 0.00085 J                                 | ND (0.00046)                              |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0028)                                | ND (0.0025)                                 | 0.260 J                                     | 0.0080 J                                    | 0.0062 J                                   | ND (0.0030)                                | ND (0.0073)                                    | ND (0.0017)                                   | ND (0.0022)                                   | ND (0.0017)                                  | ND (0.003)                                | ND (0.0027)                               | ND (0.0025)                               | ND (0.0018)                               |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | 0.0048 J                                   | ND (0.00062)                                | 0.087 J                                     | 0.009                                       | 0.0043 J                                   | 0.0039 J                                   | 0.0018 J                                       | 0.0010 J                                      | ND (0.00055)                                  | ND (0.00043)                                 | 0.0058 J                                  | ND (0.00068)                              | 0.00077 J                                 | ND (0.00046)                              |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00056)                               | ND (0.00050)                                | ND (0.032)                                  | ND (0.00069)                                | ND (0.00077)                               | ND (0.00060)                               | ND (0.0073)                                    | ND (0.00034)                                  | ND (0.00044)                                  | ND (0.00034)                                 | ND (0.00060)                              | ND (0.00054)                              | ND (0.0005)                               | ND (0.00037)                              |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | 0.00056                                    | ND (0.00050)                                | ND (0.032)                                  | ND (0.00069)                                | ND (0.00077)                               | ND (0.00060)                               | ND (0.0073)                                    | ND (0.00034)                                  | ND (0.00044)                                  | ND (0.00034)                                 | ND (0.00060)                              | ND (0.00054)                              | ND (0.0005)                               | ND (0.00037)                              |
|                             |                               |                                |                           |  |   |   |   |  |  |  |   |   |  |   |   |   |   |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | 0.4  | 0.4   | 3.4   | 4.6   | 0.23                                       | 0.032                                      | 0.084  | ND (0.0036)                                   | ND (0.0038)                                   | ND (0.0038)                                  | 0.099                                     | 2.90                                      | 0.065                                     | 0.034                                     |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 1.7  | 1.6   | 8.9   | 9.4   | 0.68                                       | 0.11                                       | 0.19   | ND (0.0036)                                   | 0.0038 J                                      | 0.0069 J                                     | 0.330                                     | 4.30                                      | 0.220                                     | 0.120                                     |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 1.6  | 1.6   | 7.3   | 9.1   | 0.48                                       | 0.12                                       | 0.2  | ND (0.0036)                                   | 0.0057 J                                      | 0.0088 J                                     | 0.260                                     | 3.20                                      | 0.200                                     | 0.110                                     |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 2.1  | 2   | 9.7   | 12  | 0.68                                       | 0.14                                       | 0.24   | ND (0.0036)                                   | 0.0063 J                                      | 0.0010 J                                     | 0.370                                     | 3.50                                      | 0.230                                     | 0.120                                     |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 1.1  | 1.1   | 5   | 6.6   | 0.3  | 0.098                                      | 0.16   | ND (0.0036)                                   | 0.0055 J                                      | 0.0072 J                                     | 0.200                                     | 1.80                                      | 0.140                                     | 0.064                                     |
| Chrysene                    | 760                           | 190,000                        | 230                       | 1.6  | 1.6   | 8.2   | 9.9   | 0.65                                       | 0.11                                       | 0.23   | ND (0.0036)                                   | 0.0041 J                                      | 0.0079 J                                     | 0.290                                     | 3.80                                      | 0.210                                     | 0.110                                     |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | 0.13                                       | 0.19  | 1.8   | 1.9   | 0.054                                      | 0.015 J                                    | 0.054  | ND (0.0036)                                   | ND (0.0038)                                   | ND (0.0038)                                  | 0.031 J                                   | 2.20                                      | 0.032                                     | 0.014 J                                   |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 1.3  | 1.2   | 15  | 16  | 0.79                                       | 0.17                                       | 0.32   | ND (0.0043)                                   | ND (0.0046)                                   | 0.0066 J                                     | 0.450                                     | 12.0                                      | 0.260                                     | 0.130                                     |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 2.5  | 2.6   | 16  | 18  | 1.5  | 0.19                                       | 0.41   | ND (0.0036)                                   | 0.0051 J                                      | 0.012 J                                      | 0.710                                     | 7.80                                      | 0.340                                     | 0.190                                     |
|                             |                               |                                |                           |  |   |   |   |  |  |  |   |   |  |   |   |   |   |
| Lead                        | 1,000                         | 190,000                        | 450                       | 170  | 48  | 150   | 120   | 87   | 85   | 88   | 1.6   | 5.6   | 3.2  | 42  | 37  | 44  | 29  |

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NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | 7551-P5<br>8/6/2021<br>3.0<br>410-50281-2 | 7551-P6<br>8/6/2021<br>3.0<br>410-50281-18 | 7551-P7<br>8/6/2021<br>3.0<br>410-50281-16 | 7551-Center<br>9/23/2021<br>5.0<br>410-56522-15 | 7551-North<br>9/23/2021<br>5.0<br>410-57140-4 | 7551-East<br>9/23/2021<br>5.0<br>410-57140-5 | 7551-South<br>9/23/2021<br>5.0<br>410-57140-7 | DUP-9<br>9/23/2021<br>410-56522-16 | UNK-ST-S<br>8/6/2021<br>3.0<br>410-50503-6 | UNK-ST-N<br>8/6/2021<br>3.0<br>410-50503-7 | UNK-ST-W<br>9/23/2021<br>3.0<br>410-56522-11 | UNK-ST-E<br>9/23/2021<br>3.0<br>410-56522-12 | Pipe 1<br>8/4/2021<br>2.0<br>410-50151-17 | Pipe 2<br>8/4/2021<br>2.0<br>410-50151-19 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|---|--|--|---|---|--|---|------------------------------------|--|--|--|--|---|---|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00044)                              | 4.10                                       | 0.042 J                                    | ND (0.00072)                                    | ND (0.00073)                                  | ND (0.046)                                   | ND (0.00043)                                  | ND (0.00066)                       | 0.00085 J                                  | 0.310 J                                    | ND (0.00067)                                 | 0.0011 J                                     | ND (0.00044)                              | ND (0.00018)                              |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.00066)                              | ND (0.055)                                 | ND (0.041)                                 | ND (0.0011)                                     | ND (0.0011)                                   | ND (0.070)                                   | ND (0.00065)                                  | ND (0.00098)                       | ND (0.00094)                               | ND (0.051)                                 | ND (0.0010)                                  | ND (0.00070)                                 | ND (0.00066)                              | ND (0.00028)                              |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.00055)                              | 15   | 0.180 J                                    | ND (0.00090)                                    | 0.0017 J                                      | 0.081 J                                      | ND (0.00054)                                  | ND (0.00082)                       | 0.0066 J                                   | 1.10                                       | 0.0032 J                                     | 0.0069                                       | ND (0.00055)                              | ND (0.00023)                              |
| Toluene                     | 10,000                        | 10,000                         | 100                       | ND (0.00066)                              | 8.40                                       | 0.220 J                                    | ND (0.0011)                                     | 0.0023 J                                      | ND (0.070)                                   | ND (0.00065)                                  | 0.0011 J                           | 0.0028 J                                   | 0.740                                      | 0.0021 J                                     | 0.0057 J                                     | ND (0.00066)                              | ND (0.00028)                              |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.0015)                               | 31   | 0.300 J                                    | ND (0.0025)                                     | ND (0.0026)                                   | ND (0.160)                                   | ND (0.0015)                                   | ND (0.0023)                        | 0.0072 J                                   | 2.40                                       | 0.0030 J                                     | 0.011 J                                      | ND (0.0015)                               | ND (0.00064)                              |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00055)                              | ND (0.046)                                 | ND (0.034)                                 | 0.029   | 0.0065 J                                      | 0.240 J                                      | ND (0.00054)                                  | 0.023                              | 0.0018 J                                   | ND (0.043)                                 | ND (0.00084)                                 | ND (0.00058)                                 | ND (0.00055)                              | ND (0.00023)                              |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.00055)                              | 0.72                                       | ND (0.034)                                 | ND (0.00090)                                    | ND (0.00091)                                  | ND (0.058)                                   | ND (0.00054)                                  | 0.0012 J                           | 0.0018 J                                   | 0.560                                      | 0.0015 J                                     | 0.0041 J                                     | ND (0.00055)                              | ND (0.00023)                              |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0022)                               | 1.10                                       | ND (0.140)                                 | ND (0.0036)                                     | ND (0.0037)                                   | ND (0.230)                                   | ND (0.0022)                                   | ND (0.0033)                        | 0.0033 J                                   | 3.40                                       | ND (0.0034)                                  | 0.009  | ND (0.0022)                               | ND (0.00092)                              |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | ND (0.00055)                              | 51   | 0.420                                      | ND (0.00090)                                    | ND (0.00091)                                  | 0.170 J                                      | ND (0.00054)                                  | ND (0.00082)                       | 0.012                                      | 2.80                                       | 0.0023 J                                     | 0.0049 J                                     | ND (0.00055)                              | ND (0.00023)                              |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00044)                              | 2.0  | ND (0.027)                                 | ND (0.00072)                                    | ND (0.00073)                                  | ND (0.046)                                   | ND (0.00043)                                  | ND (0.00066)                       | ND (0.00063)                               | 0.120 J                                    | ND (0.00067)                                 | ND (0.00047)                                 | ND (0.00044)                              | ND (0.00018)                              |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00044)                              | ND (0.037)                                 | ND (0.027)                                 | ND (0.00072)                                    | ND (0.00073)                                  | ND (0.046)                                   | ND (0.00043)                                  | ND (0.00066)                       | ND (0.00063)                               | ND (0.034)                                 | ND (0.00067)                                 | ND (0.00047)                                 | ND (0.00044)                              | ND (0.00018)                              |
|                             |                               |                                |                           |   |  |  |   |   |  |   |                                    |  |  |  |  |   |   |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.0036)                               | 0.021 J                                    | 0.018 J                                    | 0.025 J   | 0.021 J                                       | 0.63   | 0.059   | 0.022 J                            | 0.024 J                                    | 11   | 0.21   | 0.059  | ND (0.00037)                              | 0.030                                     |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.008 J                                   | 0.026                                      | 0.026                                      | 0.037   | ND (0.0057)                                   | 0.5  | 0.19  | 0.054                              | 0.025 J                                    | 8.70                                       | 1  | 0.25   | ND (0.00037)                              | 0.250                                     |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.011 J                                   | 0.017 J                                    | 0.039                                      | 0.06  | ND (0.0057)                                   | 0.27   | 0.16  | 0.058                              | 0.015 J                                    | 5.30                                       | 0.77   | 0.22   | ND (0.00037)                              | 0.220                                     |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.015 J                                   | 0.029                                      | 0.048                                      | 0.076   | ND (0.0057)                                   | 0.43   | 0.19  | 0.069                              | 0.023 J                                    | 6.80                                       | 1.1  | 0.31   | ND (0.00037)                              | 0.370                                     |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.0098 J                                  | 0.043                                      | 0.095                                      | 0.06  | ND (0.0057)                                   | 0.18   | 0.11  | 0.062                              | ND (0.0052)                                | 2.70                                       | 0.5  | 0.18   | ND (0.00037)                              | 0.180                                     |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.011 J                                   | 0.063                                      | 0.034                                      | 0.054   | ND (0.0057)                                   | 0.53   | 0.16  | 0.068                              | 0.022 J                                    | 8.00                                       | 1.1  | 0.25   | ND (0.00037)                              | 0.300                                     |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | ND (0.0036)                               | 0.031                                      | ND (0.004)                                 | 0.014 J   | ND (0.0057)                                   | 0.78   | 0.017 J                                       | 0.0091 J                           | ND (0.0052)                                | 3.80                                       | 0.054  | 0.028  | ND (0.00037)                              | 0.012 J                                   |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.0081 J                                  | 0.074                                      | 0.035                                      | 0.1   | 0.0082 J                                      | 4  | 0.19  | 0.091                              | 0.200                                      | 29   | 0.63   | 0.22   | ND (0.00045)                              | 0.097                                     |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.016 J                                   | 0.036                                      | 0.044                                      | 0.081   | ND (0.0057)                                   | 1.8  | 0.32  | 0.099                              | 0.098                                      | 15   | 2.5  | 0.41   | ND (0.00037)                              | 0.410                                     |
|                             |                               |                                |                           |   |  |  |   |   |  |   |                                    |  |  |  |  |   |   |
| Lead                        | 1,000                         | 190,000                        | 450                       | 25  | 21   | 18   | 47  | 13  | 36   | 32  | 42                                 | 39   | 65   | 120  | 49   | 13  | 25  |

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Red Shaded Value - exceeds DC MSC  
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PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Pipe 3<br>8/4/2021<br>2.0<br>410-50151-20 | Pipe 4<br>8/11/2021<br>2.0<br>410-51060-5 | Pipe 5<br>8/4/2021<br>2.0<br>410-50151-21 | Pipe 6<br>8/4/2021<br>2.0<br>410-50151-24 | Pipe 7<br>8/4/2021<br>2.0<br>410-50151-22 | Pipe 8<br>8/4/2021<br>2.0<br>410-50151-23 | Pipe 9<br>8/4/2021<br>2.0<br>410-50151-26 | Pipe 10<br>8/4/2021<br>2.0<br>410-50151-25 | Pipe 11<br>8/4/2021<br>2.0<br>410-50151-10 | Pipe 12<br>8/4/2021<br>2.0<br>410-50151-27 | Pipe 13<br>8/4/2021<br>2.0<br>410-50151-28 | Pipe 14<br>8/4/2021<br>2.0<br>410-50151-12 | Pipe 15<br>8/5/2021<br>2.0<br>410-50151-2 | Pipe 16<br>8/4/2021<br>2.0<br>410-50151-30 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|---|---|---|---|---|---|---|--|--|--|--|--|---|--|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00046)                              | ND (0.00043)                              | ND (0.026)                                | ND (0.00047)                              | 20  | 44  | 5.60                                      | 4.60                                       | ND (0.00044)                               | 0.320 J                                    | 2.30                                       | ND (0.00051)                               | ND (0.00043)                              | ND (0.00046)                               |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.00069)                              | ND (0.00065)                              | ND (0.039)                                | ND (0.00071)                              | ND (0.041)                                | ND (0.040)                                | ND (0.035)                                | ND (0.039)                                 | ND (0.00067)                               | ND (0.044)                                 | ND (0.037)                                 | ND (0.00077)                               | ND (0.00064)                              | ND (0.00069)                               |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.00058)                              | ND (0.00054)                              | ND (0.033)                                | ND (0.00059)                              | 3.10                                      | 9.40                                      | 0.084 J                                   | 0.069 J                                    | ND (0.00055)                               | 1.10                                       | ND (0.031)                                 | 0.0017 J                                   | ND (0.00053)                              | ND (0.00057)                               |
| Toluene                     | 10,000                        | 10,000                         | 100                       | ND (0.00069)                              | ND (0.00065)                              | ND (0.039)                                | ND (0.00071)                              | 0.099 J                                   | 0.097 J                                   | ND (0.035)                                | 0.043 J                                    | ND (0.00067)                               | ND (0.044)                                 | ND (0.037)                                 | ND (0.00077)                               | ND (0.00064)                              | ND (0.00069)                               |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.0016)                               | ND (0.0015)                               | ND (0.091)                                | ND (0.0017)                               | 21  | 23  | 0.360 J                                   | 0.140 J                                    | ND (0.0016)                                | 0.940                                      | ND (0.087)                                 | ND (0.0018)                                | ND (0.0015)                               | ND (0.0016)                                |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00058)                              | ND (0.00054)                              | ND (0.033)                                | ND (0.00059)                              | ND (0.034)                                | ND (0.034)                                | ND (0.029)                                | ND (0.032)                                 | ND (0.00055)                               | ND (0.036)                                 | ND (0.031)                                 | ND (0.00064)                               | ND (0.00053)                              | ND (0.00057)                               |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.00058)                              | ND (0.00054)                              | ND (0.033)                                | ND (0.00059)                              | 0.058 J                                   | 0.037 J                                   | ND (0.029)                                | ND (0.032)                                 | ND (0.00055)                               | ND (0.036)                                 | ND (0.031)                                 | ND (0.00064)                               | ND (0.00053)                              | ND (0.00057)                               |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0023)                               | ND (0.0022)                               | ND (0.130)                                | ND (0.0024)                               | 11  | 11  | 2.50                                      | 0.230 J                                    | ND (0.0022)                                | 1.20                                       | 2.90                                       | ND (0.0026)                                | ND (0.0021)                               | ND (0.0023)                                |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | ND (0.00058)                              | ND (0.00054)                              | ND (0.033)                                | ND (0.00059)                              | 150                                       | 150                                       | 0.260 J                                   | 0.810                                      | ND (0.00055)                               | 2.70                                       | 0.090 J                                    | 0.0025 J                                   | ND (0.00053)                              | ND (0.00057)                               |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00046)                              | ND (0.00043)                              | ND (0.026)                                | ND (0.00047)                              | 7.3                                       | 6.3                                       | 2.10                                      | 4.30                                       | ND (0.00044)                               | 0.260 J                                    | 3.60                                       | 0.00059 J                                  | ND (0.00043)                              | ND (0.00046)                               |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00046)                              | ND (0.00043)                              | ND (0.026)                                | ND (0.00047)                              | ND (0.027)                                | ND (0.027)                                | ND (0.023)                                | ND (0.026)                                 | ND (0.00044)                               | ND (0.029)                                 | ND (0.025)                                 | ND (0.00051)                               | ND (0.00043)                              | ND (0.00046)                               |
|                             |                               |                                |                           |   |   |   |   |   |   |   |  |  |  |  |  |   |  |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.0043)                               | ND (0.0036)                               | ND (0.037)                                | ND (0.0039)                               | ND (0.0039)                               | 0.450                                     | 0.230                                     | 0.360                                      | ND (0.0038)                                | 0.220                                      | 0.190                                      | ND (0.0039)                                | ND (0.0039)                               | ND (0.004)                                 |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | ND (0.0043)                               | ND (0.0036)                               | ND (0.037)                                | 0.0089 J                                  | 0.0083 J                                  | 0.0099                                    | 0.014 J                                   | 0.0082 J                                   | ND (0.0038)                                | 0.0089 J                                   | 0.0062 J                                   | ND (0.0039)                                | 0.0064 J                                  | ND (0.004)                                 |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | ND (0.0043)                               | ND (0.0036)                               | ND (0.037)                                | 0.011 J                                   | ND (0.0039)                               | 0.0042                                    | 0.012 J                                   | 0.0054 J                                   | ND (0.0038)                                | 0.011 J                                    | 0.0037 J                                   | ND (0.0039)                                | 0.0044 J                                  | 0.0045 J                                   |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | ND (0.0043)                               | ND (0.0036)                               | ND (0.037)                                | 0.014 J                                   | ND (0.0039)                               | 0.0041                                    | 0.014 J                                   | 0.0048 J                                   | ND (0.0038)                                | 0.017 J                                    | ND (0.0037)                                | ND (0.0039)                                | 0.0067 J                                  | ND (0.004)                                 |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | ND (0.0043)                               | ND (0.0036)                               | ND (0.037)                                | 0.0084 J                                  | ND (0.0039)                               | ND (0.0038)                               | 0.011 J                                   | 0.0045 J                                   | ND (0.0038)                                | 0.011 J                                    | 0.0055 J                                   | ND (0.0039)                                | 0.0043 J                                  | ND (0.004)                                 |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.0056 J                                  | ND (0.0036)                               | ND (0.037)                                | 0.011 J                                   | 0.013 J                                   | 0.016                                     | 0.019                                     | 0.015 J                                    | ND (0.0038)                                | 0.017 J                                    | 0.011 J                                    | ND (0.0039)                                | 0.0045 J                                  | ND (0.004)                                 |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | ND (0.0043)                               | ND (0.0036)                               | ND (0.037)                                | ND (0.0039)                               | 1.10                                      | 1.50                                      | 0.870                                     | 1.70                                       | ND (0.0038)                                | 0.540                                      | 0.780                                      | ND (0.0039)                                | ND (0.0039)                               | ND (0.004)                                 |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | ND (0.0052)                               | ND (0.0044)                               | ND (0.044)                                | 0.016 J                                   | 1.90                                      | 3.40                                      | 1.40                                      | 2.50                                       | ND (0.0045)                                | 0.410                                      | 1.30                                       | ND (0.0047)                                | ND (0.0046)                               | ND (0.0048)                                |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.051                                     | 0.0041 J                                  | ND (0.037)                                | 0.017 J                                   | 0.200                                     | 0.310                                     | 0.140                                     | 0.230                                      | ND (0.0038)                                | 0.330                                      | 0.180                                      | 0.0095 J                                   | 0.0092 J                                  | ND (0.004)                                 |
|                             |                               |                                |                           |   |   |   |   |   |   |   |  |  |  |  |  |   |  |
| Lead                        | 1,000                         | 190,000                        | 450                       | 19  | 14  | 11  | 14  | 9.3                                       | 13  | 15  | 32   | 13   | 13   | 12   | 8.9  | 11  | 4.0  |

PADEP - Pennsylvania Department of Environmetnal Protection  
NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Pipe 17<br>8/4/2021<br>2.0<br>410-50151-29 | Pipe 18<br>8/10/2021<br>2.0<br>410-50672-12 | Pipe 19<br>8/10/2021<br>2.0<br>410-50672-10 | Pipe 20<br>8/10/2021<br>2.0<br>410-50672-17 | Pipe 21<br>8/10/2021<br>2.0<br>410-50672-18 | Pipe 22<br>8/10/2021<br>2.0<br>410-50672-19 | Pipe 23<br>8/10/2021<br>2.0<br>410-50672-13 | Pipe 24<br>8/10/2021<br>2.0<br>410-50672-14 | Pipe 25<br>8/10/2021<br>2.0<br>410-50672-15 | Pipe 26<br>8/11/2021<br>2.0<br>410-50879-21 | Pipe 27<br>8/11/2021<br>2.0<br>410-51060-1 | Pipe 28<br>8/11/2021<br>2.0<br>410-50879-24 | Pipe 29<br>8/11/2021<br>2.0<br>410-51060-2 | DUP-7<br>8/11/2021<br>410-51060-3 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|--|---|---|---|---|---|---|---|---|---|--|---|--|-----------------------------------|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.021)                                 | ND (0.00081)                                | ND (0.00071)                                | ND (0.00075)                                | ND (0.00071)                                | ND (0.039)                                  | ND (0.00079)                                | ND (0.00068)                                | ND (0.00080)                                | ND (0.00063)                                | ND (0.061)                                 | ND (0.00074)                                | 1.0  | 1.6                               |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.032)                                 | ND (0.0012)                                 | 0.0027 J                                    | ND (0.0011)                                 | ND (0.0011)                                 | ND (0.058)                                  | 0.0030 J                                    | 0.0031 J                                    | ND (0.0012)                                 | ND (0.00095)                                | ND (0.092)                                 | ND (0.0011)                                 | 0.095 J                                    | ND (0.080)                        |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.027)                                 | ND (0.0010)                                 | 0.0040 J                                    | ND (0.00093)                                | ND (0.00089)                                | 0.051 J                                     | ND (0.00099)                                | 0.0019 J                                    | 0.0016 J                                    | ND (0.00079)                                | ND (0.077)                                 | ND (0.00093)                                | 18   | 34                                |
| Toluene                     | 10,000                        | 10,000                         | 100                       | ND (0.032)                                 | 0.0013 J                                    | 0.031                                       | 0.0040 J                                    | ND (0.0011)                                 | 0.061 J                                     | 0.025                                       | 0.020                                       | 0.140                                       | ND (0.0095)                                 | ND (0.092)                                 | 0.0028 J                                    | 4.1  | 0.180 J                           |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.075)                                 | ND (0.0028)                                 | 0.028                                       | ND (0.0026)                                 | ND (0.0025)                                 | 0.170 J                                     | 0.0095 J                                    | 0.013 J                                     | 0.024                                       | ND (0.0022)                                 | ND (0.210)                                 | ND (0.0026)                                 | 10   | 23                                |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.027)                                 | ND (0.0010)                                 | ND (0.00089)                                | ND (0.00093)                                | ND (0.00089)                                | ND (0.048)                                  | ND (0.00099)                                | ND (0.00085)                                | 0.0022 J                                    | ND (0.00079)                                | ND (0.077)                                 | ND (0.00093)                                | ND (0.059)                                 | ND (0.067)                        |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.027)                                 | 0.0028 J                                    | 0.027                                       | 0.0037 J                                    | ND (0.00089)                                | ND (0.048)                                  | 0.014                                       | 0.0083 J                                    | 0.032                                       | ND (0.00079)                                | ND (0.077)                                 | 0.0014 J                                    | 0.66                                       | ND (0.067)                        |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.110)                                 | ND (0.0040)                                 | ND (0.0036)                                 | ND (0.0037)                                 | ND (0.0036)                                 | ND (0.190)                                  | ND (0.0039)                                 | ND (0.0034)                                 | ND (0.0040)                                 | ND (0.0032)                                 | ND (0.310)                                 | ND (0.0037)                                 | 4.8  | 3.1                               |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | 0.027 J                                    | ND (0.0010)                                 | 0.0053 J                                    | ND (0.00093)                                | ND (0.00089)                                | 0.099 J                                     | 0.0014 J                                    | 0.0033 J                                    | 0.0037 J                                    | ND (0.00079)                                | ND (0.077)                                 | ND (0.00093)                                | 10   | 100                               |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.021)                                 | ND (0.00081)                                | ND (0.00071)                                | ND (0.00075)                                | ND (0.00071)                                | ND (0.039)                                  | ND (0.00079)                                | ND (0.00068)                                | ND (0.00080)                                | ND (0.00063)                                | ND (0.061)                                 | ND (0.00074)                                | 0.240 J                                    | 2.4                               |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.021)                                 | ND (0.00081)                                | ND (0.00071)                                | ND (0.00075)                                | ND (0.0071)                                 | ND (0.039)                                  | ND (0.00079)                                | ND (0.00068)                                | ND (0.00080)                                | ND (0.00063)                                | ND (0.061)                                 | ND (0.00074)                                | ND (0.047)                                 | ND (0.053)                        |
|                             |                               |                                |                           |  |   |   |   |   |   |   |   |   |   |  |   |  |                                   |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | 0.011 J                                    | ND (0.0045)                                 | 0.010 J                                     | ND (0.0044)                                 | ND (0.0047)                                 | 0.022                                       | 0.0048 J                                    | 0.0099 J                                    | ND (0.0048)                                 | 0.017 J                                     | ND (0.0045)                                | ND (0.0045)                                 | 0.66                                       | 0.69                              |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.016 J                                    | ND (0.0045)                                 | 0.0051 J                                    | 0.0091 J                                    | ND (0.0047)                                 | 0.035                                       | 0.0090 J                                    | 0.0053 J                                    | ND (0.0048)                                 | 0.012 J                                     | ND (0.0045)                                | ND (0.0045)                                 | 0.021 J                                    | 0.022 J                           |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.015 J                                    | ND (0.0045)                                 | 0.0049 J                                    | 0.0057 J                                    | ND (0.0047)                                 | 0.033                                       | 0.0070 J                                    | ND (0.0046)                                 | ND (0.0048)                                 | 0.0089 J                                    | ND (0.0045)                                | ND (0.0045)                                 | 0.011 J                                    | 0.010 J                           |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.023                                      | 0.0057 J                                    | 0.0063 J                                    | 0.014 J                                     | ND (0.0047)                                 | 0.041                                       | 0.029                                       | ND (0.0046)                                 | ND (0.0048)                                 | 0.013 J                                     | ND (0.0045)                                | ND (0.0045)                                 | 0.020 J                                    | 0.022 J                           |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.014 J                                    | 0.0045 J                                    | 0.0073 J                                    | 0.0071 J                                    | ND (0.0047)                                 | 0.038                                       | 0.020 J                                     | ND (0.0046)                                 | 0.0084 J                                    | 0.012 J                                     | ND (0.0045)                                | ND (0.0045)                                 | 0.017 J                                    | 0.014 J                           |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.026                                      | 0.013 J                                     | 0.0052 J                                    | 0.011 J                                     | ND (0.0047)                                 | 0.052                                       | 0.025                                       | 0.0085 J                                    | 0.021 J                                     | 0.013 J                                     | ND (0.0045)                                | ND (0.0045)                                 | 0.087                                      | 0.075                             |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | 0.011 J                                    | ND (0.0045)                                 | ND (0.0044)                                 | ND (0.0044)                                 | ND (0.0047)                                 | 0.011 J                                     | ND (0.0042)                                 | 0.014 J                                     | 0.021 J                                     | ND (0.0044)                                 | ND (0.0045)                                | ND (0.0045)                                 | 2.5  | 2.2                               |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.031                                      | 0.029                                       | 0.058                                       | 0.010 J                                     | 0.023 J                                     | 0.050                                       | 0.024                                       | 0.040                                       | 0.150                                       | 0.026                                       | 0.0084 J                                   | ND (0.0054)                                 | 3.2  | 3                                 |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.022                                      | 0.0096 J                                    | 0.014 J                                     | 0.0098 J                                    | ND (0.0047)                                 | 0.042                                       | 0.0064 J                                    | 0.019 J                                     | 0.026                                       | 0.020 J                                     | 0.0054 J                                   | ND (0.0045)                                 | 1.3  | 1.1                               |
|                             |                               |                                |                           |  |   |   |   |   |   |   |   |   |   |  |   |  |                                   |
| Lead                        | 1,000                         | 190,000                        | 450                       | 16   | 120   | 260   | 66  | 28  | 1,100                                       | 130   | 210   | 60  | 32  | 40   | 14  | 22   | 24                                |

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S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Pipe 30<br>8/11/2021<br>2.0<br>410-51060-4 | Pipe 31<br>8/11/2011<br>2.0<br>410-50879-20 | Pipe-32<br>8/10/2021<br>2.0<br>410-50879-5 | Pipe 33<br>8/10/2021<br>2.0<br>410-50879-6 | Pipe 34<br>8/10/2021<br>2.0<br>410-50879-9 | Pipe 35<br>8/10/2021<br>2.0<br>410-50879-10 | Pipe 36<br>8/10/2021<br>2.0<br>410-50879-11 | Pipe 37<br>8/10/2021<br>2.0<br>410-50879-12 | Pipe 38<br>8/10/2021<br>2.0<br>410-50879-13 | Pipe 39<br>8/10/2021<br>2.0<br>410-50879-14 | DUP-06<br>8/10/2021<br>410-50879-26 | Pipe 40<br>8/10/2021<br>2.0<br>410-50879-15 | Pipe 41<br>8/13/2021<br>2.0<br>410-51318-12 | Pipe 42<br>8/13/2021<br>2.0<br>410-51318-11 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|--|---|--|--|--|---|---|---|---|---|-------------------------------------|---|---|---|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.055)                                 | ND (0.00079)                                | ND (0.00077)                               | ND (0.00080)                               | 0.100 J                                    | ND (0.00088)                                | ND (0.00081)                                | ND (0.00088)                                | ND (0.064)                                  | ND (0.00088)                                | ND (0.048)                          | 0.063 J                                     | ND (0.00065)                                | 0.041                                       |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.083)                                 | ND (0.0012)                                 | 0.0012 J                                   | 0.0018 J                                   | ND (0.120)                                 | 0.0014 J                                    | ND (0.0012)                                 | ND (0.0013)                                 | ND (0.096)                                  | ND (0.0013)                                 | ND (0.071)                          | ND (0.085)                                  | ND (0.00097)                                | ND (0.0011)                                 |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | 0.210 J                                    | ND (0.00099)                                | 0.00098 J                                  | ND (0.0010)                                | 0.610 J                                    | 0.0036 J                                    | ND (0.0010)                                 | ND (0.0011)                                 | ND (0.080)                                  | ND (0.011)                                  | ND (0.059)                          | ND (0.071)                                  | ND (0.00081)                                | 0.00096 J                                   |
| Toluene                     | 10,000                        | 10,000                         | 100                       | 0.088 J                                    | ND (0.0012)                                 | 0.0030 J                                   | 0.0066 J                                   | ND (0.120)                                 | 0.0048 J                                    | ND (0.0012)                                 | ND (0.0013)                                 | ND (0.096)                                  | ND (0.0013)                                 | ND (0.071)                          | 0.160 J                                     | ND (0.00097)                                | 0.0012 J                                    |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.190)                                 | ND (0.0028)                                 | ND (0.0027)                                | 0.0033 J                                   | 0.750 J                                    | 0.0035 J                                    | ND (0.0028)                                 | ND (0.0031)                                 | ND (0.220)                                  | ND (0.0031)                                 | ND (0.170)                          | 0.210 J                                     | ND (0.0023)                                 | 0.33  |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.069)                                 | ND (0.00099)                                | ND (0.00096)                               | ND (0.0010)                                | ND (0.100)                                 | ND (0.0011)                                 | ND (0.0010)                                 | ND (0.0011)                                 | ND (0.080)                                  | ND (0.0011)                                 | ND (0.059)                          | ND (0.071)                                  | ND (0.00081)                                | ND (0.00091)                                |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.069)                                 | ND (0.00099)                                | 0.0051 J                                   | 0.0091 J                                   | ND (0.100)                                 | 0.0074 J                                    | 0.0018 J                                    | ND (0.0011)                                 | ND (0.080)                                  | ND (0.0011)                                 | ND (0.059)                          | ND (0.071)                                  | ND (0.00081)                                | ND (0.00091)                                |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.280)                                 | ND (0.0040)                                 | ND (0.0038)                                | ND (0.0040)                                | ND (0.410)                                 | ND (0.0044)                                 | ND (0.0041)                                 | ND (0.0044)                                 | ND (0.320)                                  | ND (0.0044)                                 | ND (0.240)                          | ND (0.280)                                  | ND (0.0032)                                 | ND (0.0036)                                 |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | 0.330 J                                    | ND (0.00099)                                | 0.0012 J                                   | ND (0.0010)                                | 1.0  | 0.0058 J                                    | ND (0.0010)                                 | ND (0.0011)                                 | ND (0.080)                                  | ND (0.0011)                                 | ND (0.059)                          | ND (0.071)                                  | ND (0.00081)                                | 0.0014 J                                    |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.055)                                 | ND (0.00079)                                | ND (0.00077)                               | ND (0.00080)                               | ND (0.083)                                 | ND (0.00088)                                | ND (0.00081)                                | ND (0.00088)                                | ND (0.064)                                  | ND (0.00086)                                | ND (0.048)                          | ND (0.057)                                  | ND (0.00065)                                | 0.0014 J                                    |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.055)                                 | ND (0.00079)                                | ND (0.00077)                               | ND (0.00080)                               | ND (0.083)                                 | ND (0.00088)                                | ND (0.00081)                                | ND (0.00088)                                | ND (0.064)                                  | ND (0.00086)                                | ND (0.048)                          | ND (0.057)                                  | ND (0.00065)                                | ND (0.00073)                                |
|                             |                               |                                |                           |  |   |  |  |  |   |   |   |   |   |                                     |   |   |   |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.006)                                 | 0.014 J                                     | 0.014 J                                    | 0.051                                      | 0.100                                      | 0.0090 J                                    | 0.0093 J                                    | ND (0.0062)                                 | 0.021 J                                     | 0.014 J                                     | ND (0.0051)                         | ND (0.0049)                                 | 0.022 J                                     | 0.031                                       |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.0067 J                                   | ND (0.0063)                                 | ND (0.0047)                                | 0.040                                      | 0.012 J                                    | ND (0.0045)                                 | 0.0055 J                                    | ND (0.0062)                                 | ND (0.0062)                                 | ND (0.0055)                                 | 0.024 J                             | 0.016 J                                     | 0.022 J                                     | 0.045                                       |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | ND (0.006)                                 | ND (0.0063)                                 | 0.0059 J                                   | 0.029                                      | 0.016 J                                    | 0.0061 J                                    | ND (0.0048)                                 | ND (0.0062)                                 | 0.015 J                                     | ND (0.0055)                                 | 0.014 J                             | 0.0094 J                                    | 0.025 J                                     | 0.041                                       |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | ND (0.006)                                 | ND (0.0063)                                 | 0.0057 J                                   | 0.089                                      | 0.014 J                                    | ND (0.0045)                                 | 0.0056 J                                    | ND (0.0062)                                 | 0.022 J                                     | ND (0.0055)                                 | 0.026                               | 0.016 J                                     | 0.046                                       | 0.066                                       |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.0085 J                                   | ND (0.0063)                                 | 0.0064 J                                   | 0.064                                      | 0.130                                      | ND (0.0045)                                 | ND (0.0048)                                 | ND (0.0062)                                 | 0.020 J                                     | 0.011 J                                     | 0.017 J                             | 0.016 J                                     | 0.025 J                                     | 0.041                                       |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.013 J                                    | ND (0.0063)                                 | 0.0084 J                                   | 0.065                                      | 0.017 J                                    | ND (0.0045)                                 | ND (0.0048)                                 | ND (0.0062)                                 | 0.024 J                                     | ND (0.0055)                                 | 0.039                               | 0.025                                       | 0.046                                       | 0.08  |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | 0.0098 J                                   | ND (0.0063)                                 | 0.0079 J                                   | 0.012 J                                    | 0.026                                      | ND (0.0045)                                 | ND (0.0048)                                 | ND (0.0062)                                 | ND (0.0062)                                 | ND (0.0055)                                 | 0.100                               | 0.087                                       | 0.0086 J                                    | ND (0.0052)                                 |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.034                                      | 0.0076 J                                    | 0.100                                      | 0.084                                      | 0.027                                      | 0.032                                       | 0.025                                       | ND (0.0074)                                 | 0.029 J                                     | 0.0077 J                                    | 0.160                               | 0.150                                       | 0.067                                       | 0.12  |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.011 J                                    | ND (0.0063)                                 | 0.0065 J                                   | 0.042                                      | 0.036                                      | ND (0.0045)                                 | ND (0.0048)                                 | ND (0.0062)                                 | 0.033                                       | ND (0.0055)                                 | 0.100                               | 0.120                                       | 0.063                                       | 0.072                                       |
|                             |                               |                                |                           |  |   |  |  |  |   |   |   |   |   |                                     |   |   |   |
| Lead                        | 1,000                         | 190,000                        | 450                       | 54   | 31  | 95   | 920  | 79   | 17  | 26  | 30  | 170   | 64  | 20                                  | 28  | 120   | 110   |

PADEP - Pennsylvania Department of Environmetnal Protection  
NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Pipe 43<br>8/13/2021<br>2.0<br>410-51318-10 | Pipe 44<br>8/11/2021<br>2.0<br>410-51060-6 | Pipe 45<br>8/5/2021<br>2.0<br>410-50281-24 | Pipe 46<br>8/5/2021<br>2.0<br>410-50281-26 | Pipe 47<br>8/5/2021<br>2.0<br>410-50281-25 | Pipe 48<br>8/5/2021<br>2.0<br>410-50281-27 | Pipe 49<br>8/5/2021<br>2.0<br>410-50281-23 | Pipe 50<br>8/5/2021<br>2.0<br>410-50281-22 | Pipe 51<br>8/5/2021<br>2.0<br>410-50281-31 | Pipe 52<br>8/5/2021<br>2.0<br>410-50281-32 | Pipe 53<br>8/5/2021<br>2.0<br>410-50281-11 | Pipe 54<br>8/9/2021<br>2.0<br>410-50672-7 | Pipe 55<br>8/5/2021<br>2.0<br>410-50281-13 | Pipe 56<br>8/9/2021<br>2.0<br>410-50672-6 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|---|--|--|--|--|--|--|--|--|--|--|---|--|---|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00071)                                | ND (0.061)                                 | ND (0.037)                                 | ND (0.037)                                 | ND (0.041)                                 | 0.00065 J                                  | ND (0.00056)                               | ND (0.00061)                               | ND (0.00077)                               | ND (0.00060)                               | ND (0.00071)                               | ND (0.00059)                              | ND (0.048)                                 | ND (0.00071)                              |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.0011)                                 | ND (0.092)                                 | ND (0.056)                                 | ND (0.055)                                 | ND (0.061)                                 | ND (0.00095)                               | ND (0.00084)                               | ND (0.00092)                               | ND (0.0012)                                | ND (0.00090)                               | ND (0.0011)                                | ND (0.00088)                              | ND (0.072)                                 | ND (0.0011)                               |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | 0.0076 J                                    | 0.140 J                                    | ND (0.047)                                 | ND (0.046)                                 | ND (0.051)                                 | ND (0.00079)                               | ND (0.00070)                               | ND (0.00077)                               | ND (0.00097)                               | ND (0.00075)                               | ND (0.00089)                               | ND (0.00073)                              | ND (0.060)                                 | ND (0.00089)                              |
| Toluene                     | 10,000                        | 10,000                         | 100                       | ND (0.0011)                                 | ND (0.092)                                 | ND (0.056)                                 | ND (0.055)                                 | ND (0.061)                                 | 0.0023 J                                   | ND (0.00084)                               | ND (0.00092)                               | ND (0.0012)                                | ND (0.00090)                               | ND (0.0011)                                | ND (0.00088)                              | ND (0.072)                                 | ND (0.0011)                               |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.0025)                                 | ND (0.210)                                 | ND (0.130)                                 | ND (0.130)                                 | ND (0.140)                                 | 0.0035 J                                   | ND (0.0019)                                | ND (0.0022)                                | ND (0.0027)                                | ND (0.0021)                                | ND (0.0025)                                | ND (0.0021)                               | ND (0.170)                                 | ND (0.0025)                               |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00089)                                | ND (0.077)                                 | ND (0.047)                                 | ND (0.046)                                 | ND (0.051)                                 | ND (0.00079)                               | ND (0.00070)                               | ND (0.00077)                               | ND (0.00097)                               | ND (0.00075)                               | ND (0.00089)                               | ND (0.00073)                              | ND (0.060)                                 | ND (0.00089)                              |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.00089)                                | ND (0.077)                                 | ND (0.047)                                 | ND (0.046)                                 | ND (0.051)                                 | 0.00093 J                                  | 0.0011 J                                   | ND (0.00077)                               | 0.0015 J                                   | ND (0.00075)                               | ND (0.00089)                               | ND (0.00073)                              | ND (0.060)                                 | ND (0.00089)                              |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0035)                                 | ND (0.310)                                 | ND (0.190)                                 | ND (0.180)                                 | ND (0.200)                                 | ND (0.0032)                                | ND (0.0028)                                | ND (0.0031)                                | ND (0.0039)                                | ND (0.0030)                                | ND (0.036)                                 | ND (0.0029)                               | ND (0.240)                                 | ND (0.0035)                               |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | 0.015                                       | 0.220 J                                    | 0.075 J                                    | ND (0.046)                                 | ND (0.051)                                 | 0.00087 J                                  | ND (0.00070)                               | ND (0.00077)                               | ND (0.00097)                               | ND (0.00075)                               | ND (0.00089)                               | ND (0.00073)                              | ND (0.060)                                 | ND (0.00089)                              |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00071)                                | ND (0.061)                                 | ND (0.037)                                 | ND (0.037)                                 | ND (0.041)                                 | ND (0.00064)                               | ND (0.00056)                               | ND (0.00061)                               | ND (0.00077)                               | ND (0.00060)                               | ND (0.00071)                               | ND (0.00059)                              | ND (0.048)                                 | ND (0.00071)                              |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00071)                                | ND (0.061)                                 | ND (0.037)                                 | ND (0.037)                                 | ND (0.041)                                 | ND (0.00064)                               | ND (0.00056)                               | ND (0.00061)                               | ND (0.00077)                               | ND (0.00060)                               | ND (0.00071)                               | ND (0.00059)                              | ND (0.048)                                 | ND (0.00071)                              |
|                             |                               |                                |                           |   |  |  |  |  |  |  |  |  |  |  |   |  |   |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | 0.017 J                                     | 0.29                                       | 0.022                                      | 0.130 J                                    | ND (0.038)                                 | ND (0.0039)                                | 0.013 J                                    | ND (0.0041)                                | 0.080 J                                    | 0.018 J                                    | ND (0.045)                                 | 0.0052 J                                  | 0.110                                      | 0.0081 J                                  |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.040 J                                     | 0.030 J                                    | 0.0067 J                                   | 0.370 J                                    | ND (0.038)                                 | 0.019                                      | 0.019 J                                    | 0.0098 J                                   | ND (0.021)                                 | 0.028                                      | 0.170 J                                    | 0.0096 J                                  | 0.510                                      | 0.026                                     |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.037 J                                     | 0.018 J                                    | 0.0067 J                                   | 0.380 J                                    | ND (0.038)                                 | 0.015 J                                    | 0.020                                      | 0.0062 J                                   | ND (0.021)                                 | ND (0.0046)                                | 0.220                                      | 0.0043 J                                  | 0.460                                      | 0.027                                     |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.057                                       | 0.033                                      | 0.014 J                                    | 0.440                                      | ND (0.038)                                 | 0.014 J                                    | 0.027                                      | 0.0099 J                                   | ND (0.021)                                 | 0.034                                      | 0.230                                      | 0.010 J                                   | 0.580                                      | 0.032                                     |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.039 J                                     | 0.023 J                                    | 0.0093 J                                   | 0.340 J                                    | 0.080 J                                    | 0.027                                      | 0.022                                      | 0.011 J                                    | 0.710                                      | ND (0.0046)                                | 0.160 J                                    | ND (0.0043)                               | 0.330                                      | 0.023                                     |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.051                                       | 0.068                                      | 0.011 J                                    | 0.460                                      | ND (0.038)                                 | 0.045                                      | 0.025                                      | 0.0097 J                                   | ND (0.021)                                 | 0.040                                      | 0.170 J                                    | 0.015 J                                   | 0.580                                      | 0.028                                     |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | ND (0.0097)                                 | 0.25                                       | ND (0.0039)                                | ND (0.081)                                 | ND (0.038)                                 | ND (0.0039)                                | ND (0.0039)                                | ND (0.0041)                                | ND (0.021)                                 | ND (0.0046)                                | ND (0.045)                                 | ND (0.0043)                               | 0.092                                      | ND (0.0040)                               |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.087                                       | 0.47                                       | 0.032                                      | 0.560                                      | ND (0.038)                                 | 0.079                                      | 0.052                                      | 0.010 J                                    | 0.270                                      | 0.064                                      | 0.056 J                                    | 0.038                                     | 1.10                                       | 0.029                                     |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.072                                       | 0.71                                       | 0.015 J                                    | 0.700                                      | ND (0.038)                                 | 0.074                                      | 0.050                                      | 0.013 J                                    | 0.100                                      | 0.039                                      | 0.220                                      | 0.041                                     | 0.930                                      | 0.040                                     |
|                             |                               |                                |                           |   |  |  |  |  |  |  |  |  |  |  |   |  |   |
| Lead                        | 1,000                         | 190,000                        | 450                       | 60  | 32   | 330  | 600  | 69   | 15   | 78   | 320  | 460  | 110  | 83   | 35  | 750  | 160                                       |

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S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Pipe 57<br>8/9/2021<br>2.0<br>410-50672-3 | Pipe 58<br>8/9/2021<br>2.0<br>410-50672-4 | Pipe 59<br>8/9/2021<br>2.0<br>410-50672-5 | Pipe 60<br>8/5/2021<br>2.0<br>410-50151-31 | Pipe 61<br>8/5/2021<br>2.0<br>410-50151-8 | Pipe 62<br>8/12/2021<br>2.0<br>410-51318-2 | Pipe 63<br>8/12/2021<br>2.0<br>410-51318-1 | Pipe 64<br>8/12/2021<br>2.0<br>410-51060-12 | Pipe 65<br>8/12/2021<br>2.0<br>410-51060-14 | Pipe 66<br>8/12/2021<br>2.0<br>410-51060-13 | Pipe 67<br>8/9/2021<br>2.0<br>410-50672-8 | Pipe 68<br>8/9/2021<br>2.0<br>410-50672-2 | Pipe 69<br>8/9/2021<br>2.0<br>410-50672-1 | Pipe 70<br>8/9/2021<br>2.0<br>410-50503-10 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|---|---|---|--|---|--|--|---|---|---|---|---|---|--|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00091)                              | ND (0.00083)                              | ND (0.00076)                              | ND (0.00055)                               | ND (0.00047)                              | ND (0.046)                                 | ND (0.00080)                               | ND (0.00077)                                | ND (0.00064)                                | ND (0.00070)                                | ND (0.00063)                              | ND (0.00059)                              | ND (0.062)                                | 0.080 J                                    |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.0014)                               | ND (0.0012)                               | ND (0.0011)                               | ND (0.00082)                               | ND (0.00071)                              | ND (0.070)                                 | ND (0.0012)                                | ND (0.0012)                                 | ND (0.00096)                                | ND (0.0011)                                 | ND (0.00094)                              | ND (0.00088)                              | ND (0.093)                                | ND (0.062)                                 |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.0011)                               | ND (0.0010)                               | ND (0.00095)                              | ND (0.00069)                               | ND (0.00059)                              | ND (0.058)                                 | ND (0.0010)                                | ND (0.00096)                                | ND (0.00080)                                | ND (0.00088)                                | ND (0.00079)                              | 0.0055 J                                  | 0.590 J                                   | 1.10                                       |
| Toluene                     | 10,000                        | 10,000                         | 100                       | ND (0.0014)                               | ND (0.0012)                               | ND (0.0011)                               | 0.0039 J                                   | ND (0.00071)                              | ND (0.070)                                 | ND (0.0012)                                | 0.0019 J                                    | ND (0.00096)                                | 0.0045 J                                    | 0.0019 J                                  | 0.0029 J                                  | 0.210 J                                   | 0.320 J                                    |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | ND (0.0032)                               | ND (0.0029)                               | ND (0.0027)                               | 0.0038 J                                   | ND (0.0016)                               | ND (0.160)                                 | ND (0.0028)                                | ND (0.0027)                                 | ND (0.0022)                                 | ND (0.0025)                                 | ND (0.0022)                               | 0.0064 J                                  | 0.350 J                                   | 0.590 J                                    |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.0011)                               | ND (0.0010)                               | ND (0.00095)                              | ND (0.00069)                               | ND (0.00059)                              | ND (0.058)                                 | ND (0.0010)                                | ND (0.00096)                                | ND (0.00080)                                | ND (0.00088)                                | ND (0.00079)                              | ND (0.00073)                              | ND (0.077)                                | ND (0.052)                                 |
| Benzene                     | 280                           | 330                            | 0.5                       | ND (0.0011)                               | ND (0.0010)                               | ND (0.00095)                              | 0.0020 J                                   | 0.00097 J                                 | ND (0.058)                                 | ND (0.0010)                                | 0.0022 J                                    | 0.00084 J                                   | 0.0032 J                                    | 0.0024 J                                  | 0.0017 J                                  | ND (0.077)                                | ND (0.052)                                 |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0045)                               | ND (0.0041)                               | ND (0.0038)                               | 0.0050 J                                   | ND (0.0024)                               | ND (0.230)                                 | ND (0.0040)                                | ND (0.0039)                                 | ND (0.0032)                                 | ND (0.0035)                                 | ND (0.0031)                               | ND (0.0029)                               | ND (0.310)                                | ND (0.210)                                 |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | ND (0.0011)                               | ND (0.0010)                               | ND (0.00095)                              | ND (0.00069)                               | ND (0.00059)                              | ND (0.058)                                 | ND (0.0010)                                | ND (0.00096)                                | ND (0.00080)                                | ND (0.00088)                                | ND (0.00079)                              | 0.0054 J                                  | 0.650 J                                   | 1.50                                       |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00091)                              | ND (0.00083)                              | ND (0.00076)                              | ND (0.00055)                               | ND (0.00047)                              | ND (0.046)                                 | ND (0.00080)                               | ND (0.00077)                                | ND (0.00064)                                | ND (0.00070)                                | ND (0.00063)                              | ND (0.00059)                              | ND (0.062)                                | ND (0.041)                                 |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00091)                              | ND (0.00083)                              | ND (0.00076)                              | ND (0.00055)                               | ND (0.00047)                              | ND (0.046)                                 | ND (0.00080)                               | ND (0.00077)                                | ND (0.00064)                                | ND (0.00070)                                | ND (0.00063)                              | ND (0.00059)                              | ND (0.062)                                | ND (0.041)                                 |
|                             |                               |                                |                           |   |   |   |  |   |  |  |   |   |   |   |   |   |  |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.0063)                               | ND (0.0044)                               | 0.0079 J                                  | 0.130                                      | 0.170                                     | ND (0.0045)                                | 0.0058 J                                   | ND (0.0048)                                 | 0.016 J                                     | 0.0054 J                                    | 0.018 J                                   | 0.120                                     | 0.044                                     | ND (0.0053)                                |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | ND (0.0063)                               | 0.0089 J                                  | 0.0071 J                                  | 0.010 J                                    | 0.031                                     | ND (0.0045)                                | 0.0084 J                                   | 0.015 J                                     | 0.025                                       | 0.016 J                                     | 0.036                                     | 0.360                                     | 0.150                                     | 0.046                                      |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | ND (0.0063)                               | 0.0057 J                                  | 0.0061 J                                  | 0.010 J                                    | 0.032                                     | ND (0.0045)                                | 0.0082 J                                   | 0.015 J                                     | 0.025                                       | 0.017 J                                     | 0.046                                     | 0.310                                     | 0.054                                     | 0.056                                      |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | ND (0.0063)                               | 0.014 J                                   | ND (0.0060)                               | 0.013 J                                    | 0.051                                     | ND (0.0045)                                | 0.019 J                                    | 0.020 J                                     | 0.034                                       | 0.025                                       | 0.068                                     | 0.370                                     | 0.095                                     | 0.069                                      |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.024 J                                   | 0.0087 J                                  | 0.0091 J                                  | 0.0085 J                                   | 0.037                                     | ND (0.0045)                                | 0.023                                      | 0.011 J                                     | 0.021 J                                     | 0.017 J                                     | 0.058                                     | 0.210                                     | 0.040                                     | 0.058                                      |
| Chrysene                    | 760                           | 190,000                        | 230                       | ND (0.0063)                               | 0.031                                     | ND (0.0060)                               | 0.023                                      | 0.042                                     | ND (0.0045)                                | 0.013 J                                    | 0.015 J                                     | 0.035                                       | 0.018 J                                     | 0.052                                     | 0.350                                     | 0.150                                     | 0.076                                      |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | ND (0.0063)                               | ND (0.0044)                               | ND (0.0060)                               | ND (0.0042)                                | ND (0.0041)                               | ND (0.0045)                                | ND (0.0045)                                | ND (0.0048)                                 | 0.011 J                                     | ND (0.0048)                                 | 0.014 J                                   | 0.072                                     | 0.013 J                                   | 0.590                                      |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | ND (0.0075)                               | 0.053                                     | ND (0.0072)                               | 0.110                                      | 0.093                                     | ND (0.0054)                                | 0.019 J                                    | 0.016 J                                     | 0.074                                       | 0.0022 J                                    | 0.120                                     | 0.460                                     | 0.510                                     | 0.760                                      |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | ND (0.0063)                               | 0.016 J                                   | ND (0.0060)                               | 0.022                                      | 0.052                                     | 0.039                                      | 0.013 J                                    | 0.023 J                                     | 0.065                                       | 0.024                                       | 0.063                                     | 0.620                                     | 0.540                                     | 0.470                                      |
|                             |                               |                                |                           |   |   |   |  |   |  |  |   |   |   |   |   |   |  |
| Lead                        | 1,000                         | 190,000                        | 450                       | 16  | 12  | 25  | 190  | 570                                       | 29   | 70   | 190   | 44  | 180   | 93  | 240                                       | 89  | 750  |

PADEP - Pennsylvania Department of Environmetnal Protection  
NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

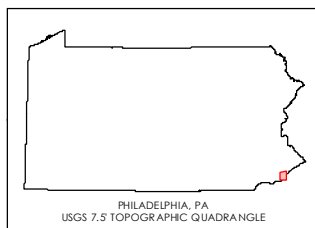
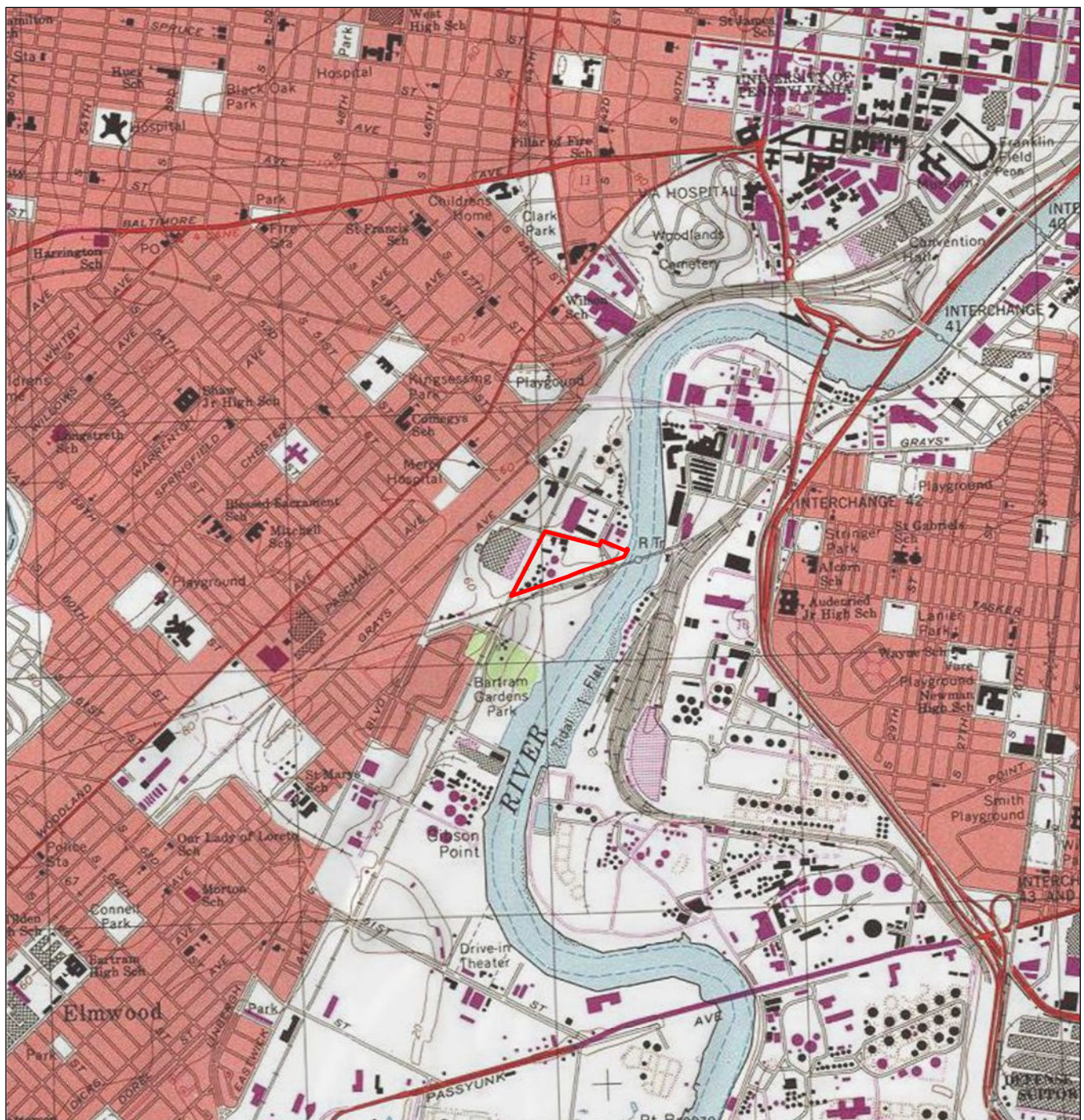
|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Dup-4<br>8/9/2021 | Pipe 71<br>8/9/2021 | Pipe 72<br>8/9/2021 | Pipe 74<br>8/6/2021 | Pipe 74<br>8/10/2021 | Pipe 75<br>8/6/2021 | Pipe 76<br>8/6/2021 | Pipe 77<br>8/6/2021 | Pipe 78<br>8/6/2021 | Pipe 79<br>8/6/2021 | Pipe 80<br>8/6/2021 | DUP-3<br>8/6/2021 | Pipe 81<br>8/6/2021 | Pipe 82<br>8/6/2021 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|-------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|---------------------|---------------------|
|                             |                               |                                |                           | 2.0               | 2.0                 | 2.0                 | 2.0                 | 2.0                  | 2.0                 | 2.0                 | 2.0                 | 2.0                 | 2.0                 | 2.0                 |                   | 2.0                 | 2.0                 |
|                             |                               |                                |                           | 410-50503-11      | 410-50503-8         | 410-50503-9         | 410-50503-4         | 410-50672-16         | 410-50281-3         | 410-50281-8         | 410-50281-7         | 410-50281-14        | 410-50281-15        | 410-50281-21        | 410-50281-1       | 410-50281-19        | 410-50281-17        |
| Ethylbenzene                | 880                           | 1,000                          | 70                        | 0.100 J           | 0.350 J             | ND (0.029)          | 0.061 J             | ND (0.00065)         | 0.044 J             | ND (0.00038)        | 1.40                | 0.140 J             | 1.70                | 0.0038 J            | 0.0048 J          | 0.0014 J            | 0.001 J             |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.056)        | ND (0.059)          | ND (0.044)          | ND (0.045)          | ND (0.00098)         | ND (0.038)          | ND (0.00057)        | ND (0.044)          | ND (0.065)          | ND (0.030)          | ND (0.00071)        | ND (0.00073)      | 0.0013 J            | ND (0.00087)        |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | 1.30              | 0.970               | 0.088 J             | 0.066 J             | ND (0.00082)         | 0.100 J             | ND (0.00048)        | 8.10                | 1.10                | 0.039 J             | 0.0014 J            | 0.0015 J          | ND (0.0056)         | 0.00073 J           |
| Toluene                     | 10,000                        | 10,000                         | 100                       | 0.450 J           | 0.170 J             | 0.230 J             | 0.280 J             | 0.0014 J             | 0.180 J             | ND (0.00057)        | 0.100 J             | 0.110 J             | ND (0.030)          | 0.011               | 0.012             | 0.031               | 0.0068 J            |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | 0.770 J           | 1.20                | 0.330 J             | 0.280 J             | ND (0.0023)          | 0.240 J             | ND (.0013)          | 3.50                | 0.470 J             | 0.110 J             | 0.012               | 0.014             | 0.0073 J            | 0.0059 J            |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.047)        | ND (0.049)          | ND (0.037)          | ND (0.037)          | ND (0.00082)         | ND (0.032)          | 0.0011 J            | ND (0.036)          | ND (0.055)          | ND (0.025)          | ND (0.00059)        | ND (0.00061)      | ND (0.0056)         | ND (0.00073)        |
| Benzene                     | 280                           | 330                            | 0.5                       | 0.068 J           | ND (0.049)          | 0.049 J             | 0.055 J             | 0.0011 J             | 0.039 J             | ND (0.00048)        | ND (0.036)          | ND (0.055)          | 0.026 J             | 0.0038 J            | 0.0043J           | 0.012               | 0.0062 J            |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.190)        | ND (0.049)          | ND (0.150)          | 0.430               | ND (0.0033)          | ND (0.130)          | ND (0.0019)         | 2.00                | 0.290 J             | 0.820               | ND (0.0024)         | 0.0036 J          | ND (0.0022)         | ND (0.0029)         |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | 2.10              | 1.90                | 0.180 J             | 0.092 J             | ND (0.00082)         | 0.065 J             | ND (0.00048)        | 19.0                | 2.20                | 27                  | 0.0057 J            | 0.0073            | 0.0011 J            | 0.0012 J            |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | 0.041 J           | 0.580               | ND (0.029)          | 0.670               | ND (0.00065)         | ND (0.025)          | ND (0.00038)        | 1.80                | 0.180 J             | 1.0                 | ND (0.00047)        | 0.00054 J         | ND (0.00044)        | ND (0.00058)        |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.037)        | ND (0.039)          | ND (0.029)          | ND (0.030)          | ND (0.00065)         | ND (0.025)          | ND (0.00038)        | ND (0.029)          | ND (0.044)          | ND (0.020)          | ND (0.00047)        | ND (0.0049)       | ND (0.00044)        | ND (0.00058)        |
|                             |                               |                                |                           |                   |                     |                     |                     |                      |                     |                     |                     |                     |                     |                     |                   |                     |                     |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | ND (0.0048)       | ND (0.0053)         | 0.038               | 1.50                | 0.019 J              | ND (0.0041)         | 0.014 J             | ND (0.0045)         | 0.031               | 0.035               | 0.033               | 0.007 J           | 0.048               | 0.110               |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.069             | 0.089               | 0.150               | 4.60                | 0.029                | 0.017 J             | 0.083               | 0.190               | 0.022 J             | 0.062               | 0.057               | 0.019             | 0.120               | 0.360               |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.047             | 0.075               | 0.160               | 3.80                | 0.021                | 0.017 J             | 0.120               | 0.270               | 0.021 J             | 0.047               | 0.094               | 0.022             | 0.330               | 0.390               |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.079             | 0.092               | 0.190               | 4.30                | 0.039                | 0.027               | 0.190               | 0.200               | 0.040               | 0.044               | 0.100               | 0.025             | 0.370               | 0.510               |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.054             | 0.086               | 0.130               | 2.60                | 0.018 J              | 0.030               | 0.150               | 0.270               | 0.056               | 0.041               | 0.110               | 0.024             | 0.430               | 0.390               |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.150             | 0.130               | 0.150               | 3.80                | 0.038                | 0.018 J             | 0.140               | 0.370               | 0.030               | 0.080               | 0.065               | 0.020             | 0.130               | 0.390               |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | 1.20              | 0.730               | 0.014 J             | 0.510               | ND (0.0041)          | 0.015 J             | 0.0056 J            | 0.900               | ND (0.0055)         | 0.130               | 0.021               | 0.0049 J          | 0.012 J             | 0.032               |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 1.90              | 0.680               | 0.110               | 4.50                | 0.076                | ND (0.0049)         | 0.076               | 0.870               | 0.064               | 0.190               | 0.110               | 0.026             | 0.097               | 0.450               |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.780             | 0.970               | 0.220               | 6.50                | 0.057                | 0.048               | 0.180               | 0.560               | 0.054               | 0.100               | 0.120               | 0.034             | 0.140               | 0.570               |
|                             |                               |                                |                           |                   |                     |                     |                     |                      |                     |                     |                     |                     |                     |                     |                   |                     |                     |
| Lead                        | 1,000                         | 190,000                        | 450                       | 210               | 130                 | 160                 | 160                 | 120                  | 190                 | 270                 | 210                 | 94                  | 14                  | 30                  | 26                | 500                 | 200                 |

PADEP - Pennsylvania Department of Environmetnal Protection  
NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
S to G MSC - Non-Residential Soil to Groundwater MSC  
All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC

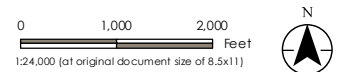
Table 1  
AST Closure Confirmation Soil Sample Results  
PBF 51st Street Terminal

|                             | PADEP<br>NR<br>DC MSC<br>0-2' | PADEP<br>NR<br>DC MSC<br>2-15' | PADEP<br>NR<br>S to G MSC | Pipe 83<br>8/6/2021<br>2.0<br>410-50281-20 | Pipe 84<br>8/6/2021<br>2.0<br>410-50503-5 | Pipe 85<br>8/6/2021<br>2.0<br>410-50503-1 | Pipe 86<br>8/6/2021<br>2.0<br>410-50503-3 | Pipe 87<br>8/6/2021<br>2.0<br>410-50281-5 |
|-----------------------------|-------------------------------|--------------------------------|---------------------------|--|---|---|---|---|
| Ethylbenzene                | 880                           | 1,000                          | 70                        | ND (0.00043)                               | 0.00043 J                                 | ND (0.083)                                | ND (0.032)                                | 0.100 J                                   |
| 1,2-Dichloroethane          | 85                            | 98                             | 0.5                       | ND (0.00065)                               | ND (0.00056)                              | ND (0.130)                                | ND (0.049)                                | ND (0.04)                                 |
| 1,3,5-Trimethylbenzene      | 4,700                         | 5,400                          | 93                        | ND (0.00054)                               | 0.00078 J                                 | ND (0.0100)                               | ND (0.041)                                | ND (0.033)                                |
| Toluene                     | 10,000                        | 10,000                         | 100                       | 0.0055                                     | 0.0025 J                                  | ND (0.130)                                | 0.053 J                                   | 0.079 J                                   |
| Xylenes, Total              | 7,900                         | 9,100                          | 1,000                     | 0.0028 J                                   | 0.0023 J                                  | ND (0.290)                                | ND (0.110)                                | 0.120 J                                   |
| Methyl tertiary butyl ether | 8,500                         | 9,800                          | 96                        | ND (0.00054)                               | ND (0.00047)                              | ND (0.100)                                | ND (0.041)                                | ND (0.033)                                |
| Benzene                     | 280                           | 330                            | 0.5                       | 0.0038 J                                   | 0.0086                                    | ND (0.100)                                | ND (0.041)                                | ND (0.033)                                |
| Napthalene                  | 66                            | 77                             | 25                        | ND (0.0022)                                | 0.0032 J                                  | ND (0.420)                                | ND (0.160)                                | ND (0.130)                                |
| 1,2,4-Trimethylbenzene      | 4,700                         | 5,400                          | 300                       | 0.00058 J                                  | 0.00077 J                                 | ND (0.100)                                | ND (0.041)                                | 0.100 J                                   |
| Isopropylbenzene            | 10,000                        | 10,000                         | 2,500                     | ND (0.00043)                               | ND (0.00037)                              | ND (0.083)                                | 0.048 J                                   | ND (0.026)                                |
| 1,2,-Dibromoethane          | 3.7                           | 4.2                            | 0.005                     | ND (0.00043)                               | ND (0.00037)                              | ND (0.083)                                | ND (0.032)                                | ND (0.026)                                |
|                             |                               |                                |                           |  |   |   |   |   |
| Anthracene                  | 190,000                       | 190,000                        | 350                       | 0.055                                      | 1.50                                      | 0.320                                     | 3.20                                      | 0.250                                     |
| Benzo(a)anthracene          | 130                           | 190,000                        | 340                       | 0.350                                      | 3.40                                      | 0.590                                     | 1.20                                      | 0.570                                     |
| Benzo(a)pyrene              | 91                            | 190,000                        | 46                        | 0.330                                      | 2.60                                      | 0.560                                     | 7.90                                      | 0.640                                     |
| Benzo(b)fluoranthene        | 76                            | 190,000                        | 170                       | 0.490                                      | 3.10                                      | 0.750                                     | 9.90                                      | 0.730                                     |
| Benzo(g,h,i)perylene        | 190,000                       | 190,000                        | 180                       | 0.300                                      | 1.60                                      | 0.460                                     | 4.50                                      | 0.590                                     |
| Chrysene                    | 760                           | 190,000                        | 230                       | 0.370                                      | 2.80                                      | 0.650                                     | 10  | 0.510                                     |
| Fluorene                    | 130,000                       | 190,000                        | 3,800                     | 0.015 J                                    | 0.610                                     | 0.490                                     | 0.850                                     | 0.180                                     |
| Phenanthrene                | 190,000                       | 190,000                        | 10,000                    | 0.190                                      | 4.80                                      | 0.910                                     | 11  | 0.260                                     |
| Pyrene                      | 96,000                        | 190,000                        | 2,200                     | 0.560                                      | 5.50                                      | 1.20                                      | 16  | 1.10                                      |
|                             |                               |                                |                           |  |   |   |   |   |
| Lead                        | 1,000                         | 190,000                        | 450                       | 76   | 51  | 180                                       | 540                                       | 720                                       |

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NR DC MSC - Non-Residential Direct Contact Medium Specific Concentration  
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All concentrations in micrograms per kilogram  
J - Value estimated by the laboratory  
ND - analyte not detected at laboratory method detection limit indicated  
Red Shaded Value - exceeds DC MSC  
Blue Shaded Value - exceeds S to G MSC



**Legend**  
 Approximate Site Boundary



Project Location: 21340311  
 51st Street,  
 Philadelphia, PA  
 Prepared by GWC on 3/20/2019 Technical  
 Review by DH on 06/09/2021  
 Independent Review by MAS on 06/09/2021

Client/Project:  
 PBF Logistics Products and Terminals LLC

Figure No.  
 1

Title  
 Site Location Map

- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South 3702 Feet
  2. Source: Stantec
  3. Service Layer Credits: Copyright © 2013 National Geographic Society, iCubed

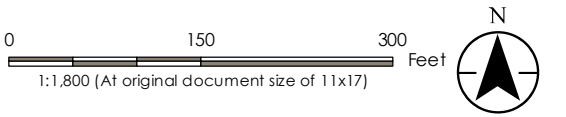
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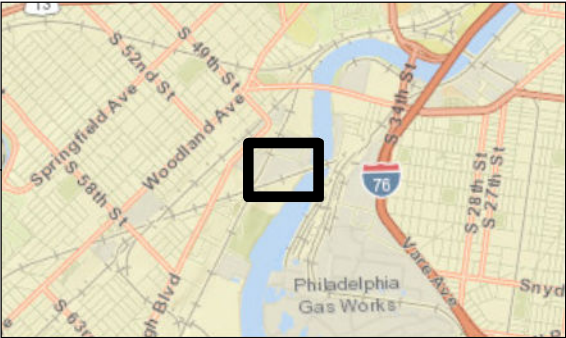
Figure No.  
**2**  
Title  
**Site Map**

Client/Project  
PBF Logistics Products and Terminals LLC

Project Location  
51st Street,  
Philadelphia, PA  
213403111  
Prepared by GWC on 3/20/2019 Technical  
Review by DH on 06/09/2021  
Independent Review by MAS on 06/09/2021



**Legend**  
 Approximate Site Boundary



**Notes**  
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet  
2. Source: Stantec  
3. Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community  
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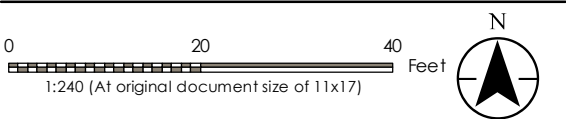
Figure No.  
**3**

Title  
**Proposed AST Closure Assessment Soil Sample Locations - ASTs 1248 and 4847**

Client/Project  
PBF Logistics Products and Terminals LLC

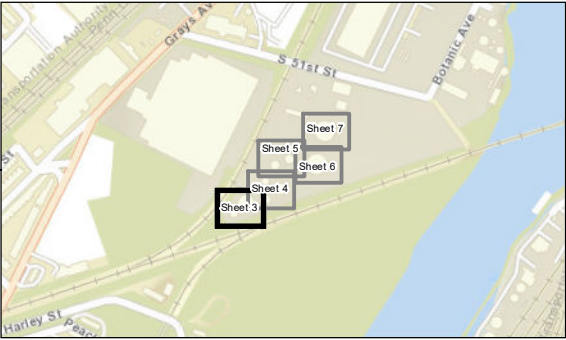
Project Location  
51st Street,  
Philadelphia, PA

213403451  
Prepared by GWC on 10/11/2021  
Technical Review by DH on 10/11/2021  
Independent Review by MS on 10/11/2021



- Legend**
- Approximate Site Boundary
  - Proposed AST Closure Assessment Soil Sample Locations**
  - ▲ Tank Bottom Soil Sample
  - Perimeter Soil Sample
  - Piping Soil Sample

- Notes:**
- Soil sample locations subject to change based on field conditions and/or observations
  - Input from PADEP may alter sample locations
  - Proposed soil sample depths
    - Tank bottom – 5 feet bgs
    - Perimeter – 3 feet bgs
    - Piping – 2 feet bgs
  - bgs – below ground surface



- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
  2. Source: Stantec
  3. Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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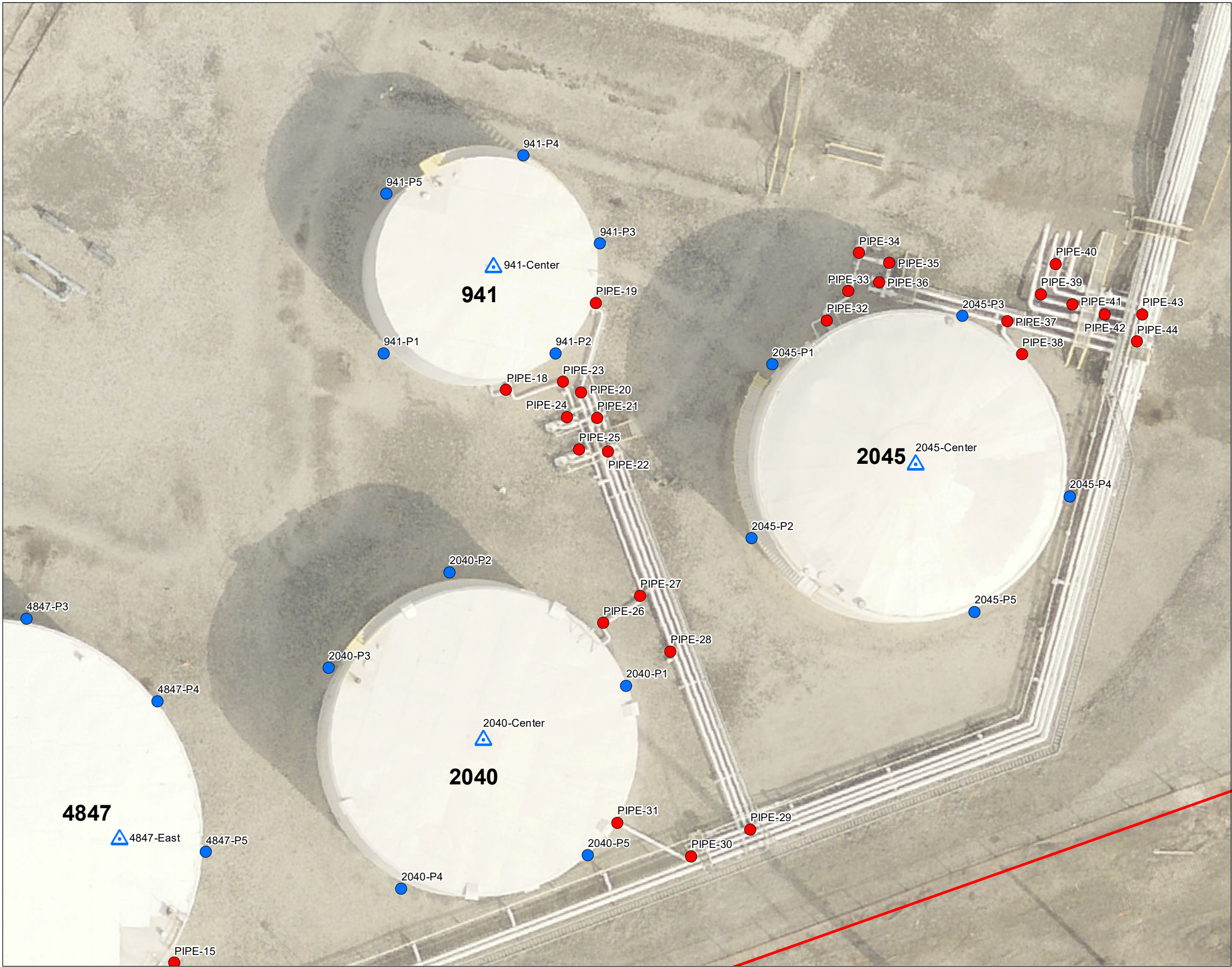
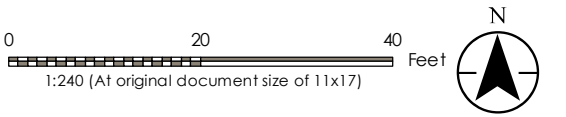


Figure No.  
**4**  
Title  
**Proposed AST Closure Assessment Soil  
Sample Locations - ASTs 941, 2040, and 2045**

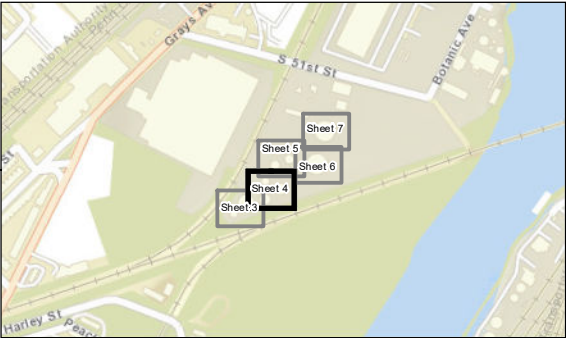
Client/Project  
PBF Logistics Products and Terminals LLC

Project Location  
51st Street,  
Philadelphia, PA  
213403451  
Prepared by GWC on 10/11/2021  
Technical Review by DH on 10/11/2021  
Independent Review by MS on 10/11/2021



- Legend**
- Approximate Site Boundary
  - ▲ Tank Bottom Soil Sample
  - Perimeter Soil Sample
  - Piping Soil Sample
- Proposed AST Closure Assessment Soil Sample Locations**

- Notes:**
- Soil sample locations subject to change based on field conditions and/or observations
  - Input from PADEP may alter sample locations
  - Proposed soil sample depths
    - Tank bottom – 5 feet bgs
    - Perimeter – 3 feet bgs
    - Piping – 2 feet bgs
  - bgs – below ground surface



- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
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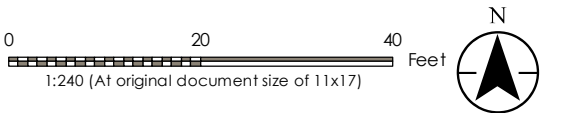




Figure No.  
**5**  
Title  
**Proposed AST Closure Assessment Soil  
Sample Locations - ASTs 649, 1043, and 1044**

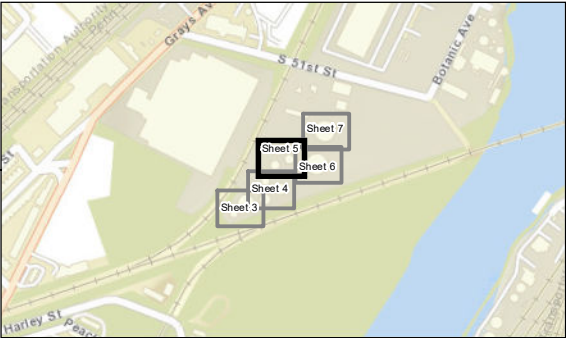
Client/Project  
PBF Logistics Products and Terminals LLC

Project Location  
51st Street,  
Philadelphia, PA  
213403451  
Prepared by GWC on 10/11/2021  
Technical Review by DH on 10/11/2021  
Independent Review by MS on 10/11/2021



- Legend**
- Approximate Site Boundary
  - Proposed AST Closure Assessment Soil Sample Locations**
    - Tank Bottom Soil Sample
    - Perimeter Soil Sample
    - Piping Soil Sample

- Notes:**
- Soil sample locations subject to change based on field conditions and/or observations
  - Input from PADEP may alter sample locations
  - Proposed soil sample depths
    - Tank bottom – 5 feet bgs
    - Perimeter – 3 feet bgs
    - Piping – 2 feet bgs
  - bgs – below ground surface



- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
  2. Source: Stantec
  3. Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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D:\2134\active\213403451\03\_data\ark\_cad\ark\_cad\mapbook\_and\l\_b\_l.mxd    Reviewed: 2021-10-21 By: GCury



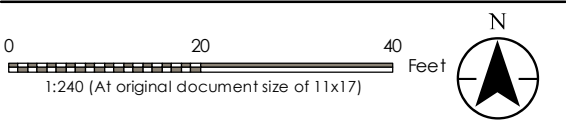
Figure No.  
**6**

Title  
**Proposed AST Closure Assessment Soil Sample Locations - AST 7550**

Client/Project  
PBF Logistics Products and Terminals LLC

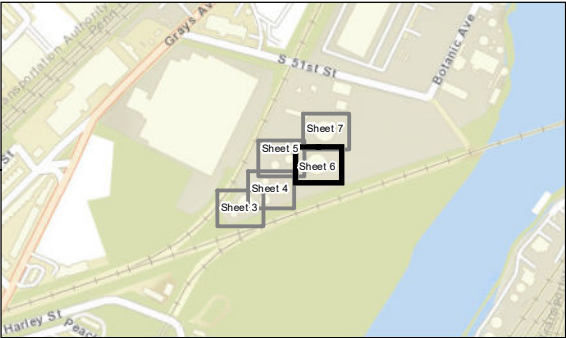
Project Location  
51st Street,  
Philadelphia, PA

213403451  
Prepared by GWC on 10/11/2021  
Technical Review by DH on 10/11/2021  
Independent Review by MS on 10/11/2021



- Legend**
- Approximate Site Boundary
  - Proposed AST Closure Assessment Soil Sample Locations**
  - △ Tank Bottom Soil Sample
  - Perimeter Soil Sample
  - Piping Soil Sample

- Notes:**
- Soil sample locations subject to change based on field conditions and/or observations
  - Input from PADEP may alter sample locations
  - Proposed soil sample depths
    - Tank bottom – 5 feet bgs
    - Perimeter – 3 feet bgs
    - Piping – 2 feet bgs
  - bgs – below ground surface



- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
  2. Source: Stantec
  3. Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community  
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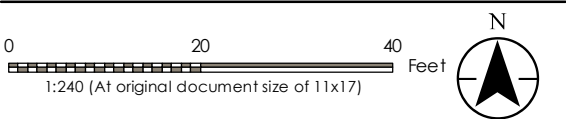
Figure No.  
**7**

Title  
**Proposed AST Closure Assessment Soil Sample Locations - AST 7551**

Client/Project  
PBF Logistics Products and Terminals LLC

Project Location  
51st Street,  
Philadelphia, PA

213403451  
Prepared by GWC on 10/11/2021  
Technical Review by DH on 10/1/2021  
Independent Review by MS on 10/11/2021



**Legend**

Approximate Site Boundary

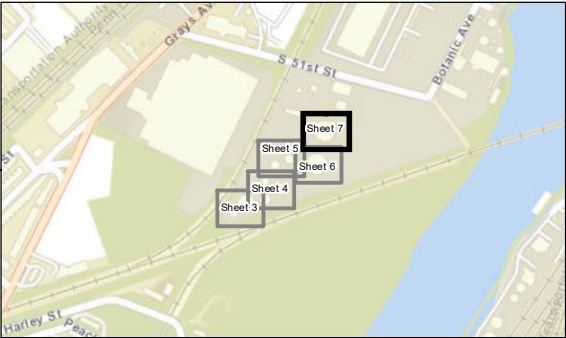
Tank Bottom Soil Sample

Perimeter Soil Sample

Piping Soil Sample

**Proposed AST Closure Assessment Soil Sample Locations**

- Notes:**
- Soil sample locations subject to change based on field conditions and/or observations
  - Input from PADEP may alter sample locations
  - Proposed soil sample depths
    - Tank bottom – 5 feet bgs
    - Perimeter – 3 feet bgs
    - Piping – 2 feet bgs
  - bgs – below ground surface



- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
  2. Source: Stantec
  3. Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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|---|--|--------------------|--|-------------------------------------|--|------------------------------------|--|
| <b>BILL OF LADING</b>   |  | Generator EPA ID # |  | 1. Document No.<br>NJ06210038-1     |  | 2. Page 1<br>of 1                  |  |
| 3. Generator's Name and Mailing Address<br>PBF Logistics Product Terminal<br>1630 South 51st Street<br>Philadelphia, PA 19143   |  |                    |  | Site Address                        |  |                                    |  |
| 4. Generator's Phone (215) 203-4117   |  |                    |  | A. State Transporter's ID           |  |                                    |  |
| 5. Transporter 1 Company Name<br>Miller Environmental Group NVD986908085  |  |                    |  | B. Transporter 1 Phone 800-394-8606 |  |                                    |  |
| 7. Transporter 2 Company Name   |  |                    |  | C. State Transporter's ID           |  |                                    |  |
| 8. EPA ID #   |  |                    |  | D. Transporter 2 Phone              |  |                                    |  |
| 9. Designated Facility Name and Site Address<br>Monarch Environmental<br>108 East Lytle Road<br>HM Warrington, NJ 08098   |  |                    |  | E. State Facility's ID              |  |                                    |  |
| 10. EPA ID #<br>NJDO1188174   |  |                    |  | F. Facility's Phone<br>856-394-9022 |  |                                    |  |
| 11. Shipping Name   |  |                    |  | 12. Containers                      |  | 13. Total Quantity                 |  |
|   |  |                    |  | No. Type                            |  | 14. Unit WL/Vol.                   |  |
| a. Non-RCRA Non-DOT Liquids N.O.S.<br>(Oil Contaminated Water)  |  |                    |  | 1 11                                |  | 2468 G                             |  |
| b.  |  |                    |  |                                     |  |                                    |  |
| c.  |  |                    |  |                                     |  |                                    |  |
| d.  |  |                    |  |                                     |  |                                    |  |
| G. Additional Descriptions for Materials Listed Above<br>NJ06210038   |  |                    |  |                                     |  |                                    |  |
| 15. Special Handling Instructions and Additional Information  |  |                    |  |                                     |  |                                    |  |
| 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  |                    |  |                                     |  |                                    |  |
| Printed/Typed Name<br>on behalf of PBF  |  |                    |  | Signature<br>                       |  | Date<br>Month Day Year<br>01 05 21 |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  |                    |  | Signature<br>                       |  | Date<br>Month Day Year<br>01 05 21 |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  |                    |  | Signature                           |  | Date<br>Month Day Year             |  |
| 19. Discrepancy Indication Space  |  |                    |  |                                     |  |                                    |  |
| 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.  |  |                    |  |                                     |  |                                    |  |
| Printed/Typed Name  |  |                    |  | Signature                           |  | Date<br>Month Day Year             |  |

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|---|--|---|--|---|--|---------------------------|--|
| <b>BILL OF LADING</b>   |  | Generator EPA ID #  |  | 1. Document No.   |  | 2. Page 1 of              |  |
| 3. Generator's Name and Mailing Address<br>PBF Logistics Products Terminal<br>PO Box 260<br>Gibbstown, NJ 08027<br>856-323-5127   |  |   |  | Site Address<br>PBF<br>1630 South 51st Street<br>Philadelphia, Pennsylvania 19143 |  |                           |  |
| 4. Generator's Phone  |  | 5. Transporter 1 Company Name<br>Miller Environmental Group, Inc. |  | 6. EPA ID #<br>NYD986908015   |  | A. State Transporter's ID |  |
| 7. Transporter 2 Company Name   |  | 8. EPA ID #   |  | B. Transporter 1 Phone<br>800-394-6506  |  | C. State Transporter's ID |  |
| 9. Designated Facility Name and Site Address<br>HM Monarch Environmental Recycling Inc<br>108 East Lake Road<br>Woodstown, NJ 08098   |  | 10. EPA ID #  |  | D. Transporter 2 Phone  |  | E. State Facility's ID    |  |
|   |  |   |  | F. Facility's Phone<br>856-769-9022   |  |                           |  |
| 11. Shipping Name   |  |   |  | 12. Containers  |  | 13. Total Quantity        |  |
|   |  |   |  | No. Type  |  | 14. Unit WL/Vol.          |  |
| a. NON-RCRA, NON-DOT REGULATED LIQUIDS, N.O.S./OILY WASTE WATER   |  |   |  | 1   |  | 1993                      |  |
| b.  |  |   |  |   |  |                           |  |
| c.  |  |   |  |   |  |                           |  |
| d.  |  |   |  |   |  |                           |  |
| G. Additional Descriptions for Materials Listed Above   |  |   |  |   |  |                           |  |
| 15. Special Handling Instructions and Additional Information<br>TJ06210028  |  |   |  |   |  |                           |  |
| 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  |   |  |   |  |                           |  |
| Printed/Typed Name  |  |   |  | Signature   |  | Date                      |  |
|   |  |   |  |   |  | Month Day Year<br>1 6 21  |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  |   |  | Signature   |  | Date                      |  |
| Printed/Typed Name<br>Devon Brainer   |  |   |  |   |  | Month Day Year<br>1 06 21 |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  |   |  | Signature   |  | Date                      |  |
| Printed/Typed Name  |  |   |  |   |  | Month Day Year            |  |
| 19. Discrepancy Indication Space  |  |   |  |   |  |                           |  |
| 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.  |  |   |  |   |  |                           |  |
| Printed/Typed Name  |  |   |  | Signature   |  | Date                      |  |
|   |  |   |  |   |  | Month Day Year            |  |

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| <b>BILL OF LADING</b>   |  | Generator EPA ID #   |  | 1. Document No.   |  | 2. Page 1 of                          |  |
| 3. Generator's Name and Mailing Address<br>PBF Logistics Products Terminal<br>PO Box 860<br>Gibbstown, NJ 08027<br>(856) 324-6477 |  |  |  | Site Address<br>PBF<br>1630 South 51st Street<br>Philadelphia, Pennsylvania 19143   |  |                                       |  |
| 4. Generator's Phone ( )  |  | 5. Transporter 1 Company Name<br>Miller Environmental Group, Inc.  |  | 6. EPA ID #<br>NYD986908015   |  | A. State Transporter's ID             |  |
| 7. Transporter 2 Company Name   |  | 8. EPA ID #  |  | 9. Designated Facility Name and Site Address<br>Monarch Environmental Recycling Inc<br>103 East Lake Road<br>Woodstown, NJ 08096  |  | 10. EPA ID #<br>NJ0011831174          |  |
| HM  |  | 11. Shipping Name<br>S<br>TA<br>NON-RCRA, NON-DOT REGULATED LIQUIDS, H.O.S./OILY WASTE<br>WATERS                                     |  | 12. Containers<br>No. Type<br>1 1   |  | 13. Total Quantity<br>1 79.00<br>2752 |  |
| 14. Unit<br>WT./Vol.  |  | 15. Special Handling Instructions and Additional Information<br>14106218023  |  | 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  | Date<br>Month Day Year<br>1 2 21      |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  | Printed/Typed Name<br>MAKSYM I. PANOV  |  | Signature<br>Maksim I. Panov  |  | Date<br>Month Day Year<br>1 2 21      |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  | Printed/Typed Name<br>Dennis Brown   |  | Signature<br>Dennis Brown   |  | Date<br>Month Day Year<br>01 07 20    |  |
| 19. Discrepancy Indication Space  |  | 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19. |  | Printed/Typed Name  |  | Signature                             |  |
| 21. Facility's Phone  |  | 22. Facility's ID  |  | 23. Facility's Name   |  | Date<br>Month Day Year                |  |

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24-Hour Emergency Phone Number  
1-800-843-8265

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| BILL OF LADING  |  | Generator EPA ID #            | 1. Document No.<br>N504210028                           | 2. Page 1<br>of                     |  |
|---|--|-------------------------------|---|-------------------------------------|--|
| 3. Generator's Name and Mailing Address<br>PBF<br>PO Box 516<br>644 Main St<br>New Bedford MA 01901   |  |                               | Site Address<br>PBF<br>1630 South St<br>Philadelphia PA |                                     |  |
| 4. Generator's Phone ( )  |  | 6. EPA ID #<br>NYD986903087   | A. State Transporter's ID                               |                                     |  |
| 5. Transporter 1 Company Name<br>MWH Environmental Group  |  | 8. EPA ID #                   | B. Transporter 1 Phone<br>800-591-5100                  |                                     |  |
| 7. Transporter 2 Company Name   |  | 10. EPA ID #                  | C. State Transporter's ID                               |                                     |  |
| 9. Designated Facility Name and Site Address<br>PBF<br>644 Main St<br>Philadelphia PA   |  | E. State Facility's ID        |   | F. Facility's Phone<br>856-769-9000 |  |
| 11. Shipping Name   |  | 12. Containers                | 13. Total Quantity                                      | 14. Unit Wt./Vol.                   |  |
| a. NON HAZ / NON DOT<br>WATER OIL   |  | No. Type<br>xx1 TT            | 2752 G  |                                     |  |
| b.  |  |                               |   |                                     |  |
| c.  |  |                               |   |                                     |  |
| d.  |  |                               |   |                                     |  |
| G. Additional Descriptions for Materials Listed Above   |  |                               |   |                                     |  |
| 15. Special Handling Instructions and Additional Information  |  |                               |   |                                     |  |
| 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  |                               |   |                                     |  |
| Printed/Typed Name<br>MAKSEM I. PANDOV  |  | Signature<br>Maksim I. Pandov |   | Date<br>Month Day Year<br>1 8 21    |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  | Signature                     |   | Date                                |  |
| Printed/Typed Name<br>Nico J. J. J.   |  | Signature                     |   | Month Day Year<br>1 8 21            |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  | Signature                     |   | Date                                |  |
| Printed/Typed Name  |  | Signature                     |   | Month Day Year                      |  |
| 19. Discrepancy Indication Space  |  |                               |   |                                     |  |
| 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.  |  |                               |   |                                     |  |
| Printed/Typed Name  |  | Signature                     |   | Date<br>Month Day Year              |  |

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| <b>BILL OF LADING</b>   |  | Generator EPA ID #           |  | 1. Document No.   |  | 2. Page 1 of                     |  |
| 3. Generator's Name and Mailing Address<br>PBF Logistics Products Transport<br>PO Box 850<br>Gibbstown, NJ 08027  |  |                              |  | Site Address<br>PBF<br>1630 South 51st Street<br>Philadelphia, Pennsylvania 19142 |  |                                  |  |
| 4. Generator's Phone ( ) 6-224-6477   |  |                              |  | A. State Transporter's ID   |  |                                  |  |
| 5. Transporter 1 Company Name<br>Miller Environmental Group, Inc.   |  | 6. EPA ID #<br>NY1048600A01  |  | B. Transporter 1 Phone<br>820-354-6506  |  |                                  |  |
| 7. Transporter 2 Company Name   |  | 8. EPA ID #                  |  | C. State Transporter's ID   |  |                                  |  |
|   |  |                              |  | D. Transporter 2 Phone  |  |                                  |  |
| 9. Designated Facility Name and Site Address<br>Monarch Environmental Recycling Inc<br>196 East Lake Road<br>Woodstown, NJ 08096  |  | 10. EPA ID #<br>NJ0011881174 |  | E. State Facility's ID  |  |                                  |  |
| HM  |  |                              |  | F. Facility's Phone<br>856-759-9022   |  |                                  |  |
| 11. Shipping Name   |  |                              |  | 12. Containers  |  | 13. Total Quantity               |  |
|   |  |                              |  | No. Type  |  | 14. Unit Wt./Vol.                |  |
| a. NON-RCRA NON-DOT REGULATED LIQUIDS, N.O.S./OILY WASTE (WATER)  |  |                              |  |   |  | 2752                             |  |
| b.  |  |                              |  |   |  |                                  |  |
| c.  |  |                              |  |   |  |                                  |  |
| d.  |  |                              |  |   |  |                                  |  |
| G. Additional Descriptions for Materials Listed Above   |  |                              |  |   |  |                                  |  |
| 15. Special Handling Instructions and Additional Information<br>NJ05210028  |  |                              |  |   |  |                                  |  |
| 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  |                              |  |   |  |                                  |  |
| Printed/Typed Name<br>MAKSYM I. PANOV   |  |                              |  | Signature<br>Maksym I. Panov  |  | Date<br>Month Day Year<br>1 8 21 |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  |                              |  | Signature<br>D. Brummer   |  | Date<br>Month Day Year<br>1 8 21 |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  |                              |  | Signature   |  | Date<br>Month Day Year           |  |
| Printed/Typed Name  |  |                              |  | Signature   |  | Date<br>Month Day Year           |  |
| 19. Discrepancy Indication Space  |  |                              |  |   |  |                                  |  |
| 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.  |  |                              |  |   |  |                                  |  |
| Printed/Typed Name  |  |                              |  | Signature   |  | Date<br>Month Day Year           |  |

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| <b>BILL OF LADING</b>   |  | Generator EPA ID #                 |  | 1. Document No.<br><b>NJ06210431-1</b>  |  | 2. Page 1<br>of                  |  |
| 3. Generator's Name and Mailing Address<br><b>PBF Logistics Products Terminals, LLC<br/>PO Box 850<br/>Gibbstown, NJ 08027</b>  |  |                                    |  | Site Address<br><b>51st Street Terminal<br/>1630 South 51st Street<br/>Philadelphia, PA 19143</b> |  |                                  |  |
| 4. Generator's Phone ( )  |  |                                    |  | A. State Transporter's ID   |  |                                  |  |
| 5. Transporter 1 Company Name<br><b>Miller Environmental Group, Inc.</b>  |  | 6. EPA ID #<br><b>NYD986908085</b> |  | B. Transporter 1 Phone<br><b>800-394-5506</b>   |  |                                  |  |
| 7. Transporter 2 Company Name   |  | 8. EPA ID #                        |  | C. State Transporter's ID   |  |                                  |  |
|   |  |                                    |  | D. Transporter 2 Phone  |  |                                  |  |
| 9. Designated Facility Name and Site Address<br><b>Miller Environmental Group Inc.<br/>108 East Lake Road<br/>Woodstown, NJ 08098</b>   |  | 10. EPA ID #                       |  | E. State Facility's ID  |  |                                  |  |
| <b>HM</b>   |  |                                    |  | F. Facility's Phone<br><b>856-769-9022</b>  |  |                                  |  |
| 11. Shipping Name   |  |                                    |  | 12. Containers<br>No. Type  |  | 13. Total<br>Quantity            |  |
| a. <b>UN 1993 Flammable liquids n.o.s. (Transmit), 3, PG II</b>   |  |                                    |  | 1   |  | 2746                             |  |
| b.  |  |                                    |  |   |  |                                  |  |
| c.  |  |                                    |  |   |  |                                  |  |
| d.  |  |                                    |  |   |  |                                  |  |
| G. Additional Descriptions for Materials Listed Above   |  |                                    |  |   |  |                                  |  |
| 15. Special Handling Instructions and Additional Information<br><b>Line 1. Approval #: N/A<br/>Job #: NJ06210428<br/>PH11710</b>  |  |                                    |  |   |  |                                  |  |
| 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  |                                    |  |   |  |                                  |  |
| Printed/Typed Name  |  |                                    |  | Signature   |  | Date                             |  |
| <b>Don Burke</b>  |  |                                    |  | <b>Don Burke</b>  |  | Month Day Year<br><b>10 4 21</b> |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  |                                    |  | Signature   |  | Date                             |  |
| <b>Nick Pantore</b>   |  |                                    |  | <b>Nick Pantore</b>   |  | Month Day Year<br><b>10 4 21</b> |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  |                                    |  | Signature   |  | Date                             |  |
| Printed/Typed Name  |  |                                    |  | Signature   |  | Month Day Year                   |  |
|   |  |                                    |  |   |  |                                  |  |
| 19. Discrepancy Indication Space  |  |                                    |  |   |  |                                  |  |
| 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.  |  |                                    |  |   |  |                                  |  |
| Printed/Typed Name  |  |                                    |  | Signature   |  | Date                             |  |
|   |  |                                    |  |   |  | Month Day Year                   |  |

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| <b>BILL OF LADING</b>   |  | Generator EPA ID #                 |  | 1. Document No.<br><b>NJ06210392-1</b>  |  | 2. Page 1<br>of 1       |  |
| 3. Generator's Name and Mailing Address<br><b>PBF Logistics Products Terminals, LLC<br/>PO Box 860<br/>Gibbstown, NJ 08027</b>  |  |                                    |  | Site Address<br><b>51st Street Terminal<br/>1630 South 51st Street<br/>Philadelphia, PA 19143</b> |  |                         |  |
| 4. Generator's Phone ( )  |  |                                    |  | A. State Transporter's ID   |  |                         |  |
| 5. Transporter 1 Company Name<br><b>Miller Environmental Group, Inc.</b>  |  | 6. EPA ID #<br><b>NYD986908085</b> |  | B. Transporter 1 Phone<br><b>800-334-5686</b>   |  |                         |  |
| 7. Transporter 2 Company Name   |  | 8. EPA ID #                        |  | C. State Transporter's ID   |  |                         |  |
| 9. Designated Facility Name and Site Address<br><b>Miller Environmental Group Inc.<br/>108 East Lake Road<br/>Woodstown, NJ 08098</b>   |  | 10. EPA ID #                       |  | D. Transporter 2 Phone  |  |                         |  |
| HM  |  |                                    |  | E. State Facility's ID  |  |                         |  |
|   |  |                                    |  | F. Facility's Phone<br><b>856-769-9022</b>  |  |                         |  |
| 11. Shipping Name   |  |                                    |  | 12. Containers  |  | 13. Total Quantity      |  |
|   |  |                                    |  | No. Type  |  | Unit                    |  |
| a. <b>NON HAZARDOUS SOLIDS, NON DOT/NON RCRA</b>  |  |                                    |  | 1 1 CM  |  | 20 Y                    |  |
| b.  |  |                                    |  |   |  |                         |  |
| c.  |  |                                    |  |   |  |                         |  |
| d.  |  |                                    |  |   |  |                         |  |
| G. Additional Descriptions for Materials Listed Above   |  |                                    |  |   |  |                         |  |
| 15. Special Handling Instructions and Additional Information<br><b>Line 1. Approval #: 8543<br/>Job #: NJ06210392<br/>PHI1720</b>   |  |                                    |  |   |  |                         |  |
| 16. GENERATOR'S CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements. |  |                                    |  |   |  |                         |  |
| Printed/Typed Name<br><b>Matt Draper</b>  |  |                                    |  | Signature<br><i>[Signature]</i>   |  | Date<br><b>10/11/21</b> |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials   |  |                                    |  | Signature<br><i>[Signature]</i>   |  | Date<br><b>10/11/21</b> |  |
| Printed/Typed Name<br><b>John Daugherty</b>   |  |                                    |  | Signature   |  | Date                    |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials   |  |                                    |  | Signature   |  | Date                    |  |
| Printed/Typed Name  |  |                                    |  | Signature   |  | Date                    |  |
| 19. Discrepancy Indication Space  |  |                                    |  |   |  |                         |  |
| 20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.  |  |                                    |  |   |  |                         |  |
| Printed/Typed Name  |  |                                    |  | Signature   |  | Date                    |  |

GENERATOR

TRANSPORTER

FACILITY

BILL OF LADING

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-50151-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/15/2021 8:44:00 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



---

Amek Carter  
Project Manager  
8/15/2021 8:44:00 PM



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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *3        | ISTD response or retention time outside acceptable limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| E         | Result exceeded calibration range.   |
| F2        | MS/MSD RPD exceeds control limits  |
| FL        | MS and/or MSD recovery below control limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### Metals

| Qualifier | Qualifier Description                        |
|-----------|--|
| F2        | MS/MSD RPD exceeds control limits            |
| F3        | Duplicate RPD exceeds the control limit      |
| FL        | MS and/or MSD recovery below control limits. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |

# Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|--------------|---|
| TNTC         | Too Numerous To Count   |

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## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Job ID: 410-50151-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-50151-1

#### Receipt

The samples were received on 8/5/2021 4:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.9°C and 2.7°C

#### Receipt Exceptions

The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): Pipe 60 (2) (410-50151-31) and Trip Blank (410-50151-32)

#### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: 1248-P5 (3) (410-50151-11), Pipe 5 (2) (410-50151-21) and Pipe 17 (2) (410-50151-29). Elevated reporting limits (RLs) are provided.

Method 8260C: Internal standard (ISTD) response for the following sample was outside of acceptance limits: Pipe 2 (2) (410-50151-19). The sample(s) was not re-analyzed due to insufficient volume.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Client Sample ID: 4847-P6 (3)

### Lab Sample ID: 410-50151-1

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 2.9    |           | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 15 (2)

### Lab Sample ID: 410-50151-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 6.4    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 4.4    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 6.7    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 4.3    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 4.5    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 9.2    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 11     | FL F2     | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 4847-P2 (3)

### Lab Sample ID: 410-50151-3

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 5.8    | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 6.1    | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 6.4    | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 6.4    | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 5.1    | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 12     | J         | 20  | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 14     | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 15     |           | 1.6 | 0.63 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 4847-P1 (3)

### Lab Sample ID: 410-50151-4

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 4.8    | J         | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 4.4    | J         | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5.4    | J         | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 4.6    | J         | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 6.8    | J         | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 15     |           | 1.2 | 0.49 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 4847-P3 (3)

### Lab Sample ID: 410-50151-5

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 8.5    |           | 1.2 | 0.48 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1043-P3 (3)

### Lab Sample ID: 410-50151-6

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 5.6    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 7.6    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 62     |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 8.4    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 9.7    |           | 1.5 | 0.61 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: DUP-2

### Lab Sample ID: 410-50151-7

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 4.9    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 120    |           | 1.7 | 0.67 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Client Sample ID: Pipe 61 (2)

Lab Sample ID: 410-50151-8

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 0.97   | J         | 5.9 | 0.59 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 170    |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 31     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 32     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 51     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 37     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 42     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 93     |           | 21  | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 52     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 570    |           | 1.4 | 0.55 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1043-P2 (3)

Lab Sample ID: 410-50151-9

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 0.94   | J         | 7.3 | 0.88 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 1.9    | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 38     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 26     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 31     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 49     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 32     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 39     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 7.7    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 100    |           | 21  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 56     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 490    |           | 1.6 | 0.62 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 11 (2)

Lab Sample ID: 410-50151-10

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 13     |           | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1248-P5 (3)

Lab Sample ID: 410-50151-11

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 9.1    |           | 1.2 | 0.48 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 14 (2)

Lab Sample ID: 410-50151-12

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 1.7    | J         | 6.4 | 0.64 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 2.5    | J         | 6.4 | 0.64 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 0.59   | J         | 6.4 | 0.51 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Pyrene                 | 9.5    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 8.9    |           | 1.2 | 0.47 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1248-P4 (3)

Lab Sample ID: 410-50151-13

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 17     |           | 1.2 | 0.50 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Client Sample ID: 1248-P3 (3)

### Lab Sample ID: 410-50151-14

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 12     |           | 1.7 | 0.67 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1248-P2 (3)

### Lab Sample ID: 410-50151-15

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 13     |           | 1.2 | 0.49 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: DUP-1

### Lab Sample ID: 410-50151-16

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 15     |           | 1.2 | 0.50 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 1 (2)

### Lab Sample ID: 410-50151-17

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 13     |           | 1.3 | 0.50 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1248-P1 (3)

### Lab Sample ID: 410-50151-18

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 17     |           | 1.2 | 0.49 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 2 (2)

### Lab Sample ID: 410-50151-19

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 30     |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 250    |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 220    |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 370    |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 180    |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 300    |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 12     | J         | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 97     |           | 19  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 410    |           | 19  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 25     |           | 1.2 | 0.49 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 3 (2)

### Lab Sample ID: 410-50151-20

| Analyte  | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Chrysene | 5.6    | J         | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene   | 51     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead     | 19     |           | 1.4 | 0.56 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 5 (2)

### Lab Sample ID: 410-50151-21

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 11     |           | 1.5 | 0.61 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 7 (2)

### Lab Sample ID: 410-50151-22

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Ethylbenzene           | 20000  |           | 340 | 27  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 3100   |           | 340 | 34  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 99     | J         | 340 | 41  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 21000  |           | 680 | 95  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Client Sample ID: Pipe 7 (2) (Continued)

Lab Sample ID: 410-50151-22

| Analyte                     | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Benzene                     | 58     | J         | 340  | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene                 | 11000  |           | 340  | 140  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene            | 7300   |           | 340  | 27   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene - DL | 150000 |           | 6800 | 680  | ug/Kg | 1000    | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene          | 8.3    | J         | 19   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 13     | J         | 19   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 1100   |           | 19   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 1900   |           | 19   | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 200    |           | 19   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 9.3    |           | 1.3  | 0.53 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 8 (2)

Lab Sample ID: 410-50151-23

| Analyte                     | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene      | 9400   |           | 340  | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                     | 97     | J         | 340  | 40   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total              | 23000  |           | 670  | 94   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                     | 37     | J         | 340  | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene                 | 11000  |           | 340  | 130  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene            | 6300   |           | 340  | 27   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Ethylbenzene - DL           | 44000  |           | 6700 | 540  | ug/Kg | 1000    | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene - DL | 150000 |           | 6700 | 670  | ug/Kg | 1000    | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 450    | FL F2     | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 9.9    | J FL F2   | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 4.2    | J FL F2   | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 4.1    | J FL F2   | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 16     | J FL F2   | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 1500   | FL F2     | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 3400   | FL F2     | 19   | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 310    | FL F2     | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 13     |           | 1.4  | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 6 (2)

Lab Sample ID: 410-50151-24

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 8.9    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 11     | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 14     | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.4    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 11     | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 16     | J         | 19  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 17     | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 14     |           | 1.5 | 0.58 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 10 (2)

Lab Sample ID: 410-50151-25

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Ethylbenzene           | 4600   |           | 320 | 26  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 69     | J         | 320 | 32  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 43     | J         | 320 | 39  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 140    | J         | 650 | 91  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 230    | J         | 320 | 130 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Client Sample ID: Pipe 10 (2) (Continued)

Lab Sample ID: 410-50151-25

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 810    |           | 320 | 32   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 4300   |           | 320 | 26   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 360    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 8.2    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 5.4    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 4.8    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 4.5    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 15     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 1700   |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 2500   |           | 19  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 230    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 32     |           | 1.4 | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 9 (2)

Lab Sample ID: 410-50151-26

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 5600   |           | 290 | 23   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 84     | J         | 290 | 29   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 360    | J         | 580 | 81   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 2500   |           | 290 | 120  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 260    | J         | 290 | 29   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 2100   |           | 290 | 23   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 230    |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 14     | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 12     | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 14     | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 11     | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 19     |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 870    |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 1400   |           | 18  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 140    |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 15     |           | 1.4 | 0.55 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 12 (2)

Lab Sample ID: 410-50151-27

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 320    | J         | 360 | 29   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1100   |           | 360 | 36   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 940    |           | 730 | 100  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 1200   |           | 360 | 150  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 2700   |           | 360 | 36   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 260    | J         | 360 | 29   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 220    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 8.9    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 11     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 17     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 11     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 17     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 540    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 410    |           | 19  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 330    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 13     |           | 1.3 | 0.53 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Client Sample ID: Pipe 13 (2)

Lab Sample ID: 410-50151-28

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 2300   |           | 310 | 25   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 2900   |           | 310 | 120  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 90     | J         | 310 | 31   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 3600   |           | 310 | 25   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 190    |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 6.2    | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 3.7    | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 5.5    | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 11     | J         | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 780    |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 1300   |           | 18  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 180    |           | 18  | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 12     |           | 1.2 | 0.49 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 17 (2)

Lab Sample ID: 410-50151-29

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 27     | J         | 270 | 27   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 11     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 16     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 15     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 23     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 14     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 26     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 11     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 31     |           | 20  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 22     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 16     |           | 1.7 | 0.66 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 16 (2)

Lab Sample ID: 410-50151-30

| Analyte        | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]pyrene | 4.5    | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead           | 4.0    |           | 1.4 | 0.54 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 60 (2)

Lab Sample ID: 410-50151-31

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 3.9    | J         | 6.9 | 0.82 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total       | 3.8    | J         | 14  | 1.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 2.0    | J         | 6.9 | 0.69 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene          | 5.0    | J         | 6.9 | 2.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 130    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 10     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 10     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 13     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.5    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 23     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 110    |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 22     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 190    |           | 1.3 | 0.53 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-50151-32**

No Detections.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 4847-P6 (3)

Lab Sample ID: 410-50151-1

Date Collected: 08/05/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 73.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 6.4 | 0.52 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.4 | 0.77 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Toluene                     | ND     |           | 6.4 | 0.77 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.8  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Benzene                     | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Naphthalene                 | ND     |           | 6.4 | 2.6  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Isopropylbenzene            | ND     |           | 6.4 | 0.52 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| 1,2-Dibromoethane           | ND     |           | 6.4 | 0.52 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:07 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 12:07 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 12:07 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Benzo[a]anthracene   | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Benzo[a]pyrene       | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Benzo[b]fluoranthene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Chrysene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Fluorene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Phenanthrene         | ND     |           | 23 | 5.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Pyrene               | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:17 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 16        | S1-       | 39 - 100 | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| Nitrobenzene-d5 (Surr)  | 35        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 09:17 | 1       |
| p-Terphenyl-d14 (Surr)  | 5         | S1-       | 45 - 108 | 08/10/21 17:56 | 08/11/21 09:17 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 2.9    |           | 1.7 | 0.69 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:45 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.5   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 15 (2)

Lab Sample ID: 410-50151-2

Date Collected: 08/05/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 5.3 | 0.43 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| 1,2-Dichloroethane | ND     |           | 5.3 | 0.64 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 15 (2)

Lab Sample ID: 410-50151-2

Date Collected: 08/05/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 5.3      | 0.53 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Toluene                      | ND        |           | 5.3      | 0.64 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.3      | 0.53 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Benzene                      | ND        |           | 5.3      | 0.53 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Naphthalene                  | ND        |           | 5.3      | 2.1  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.3      | 0.53 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Isopropylbenzene             | ND        |           | 5.3      | 0.43 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.3      | 0.43 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 117       |           | 54 - 135 |      |       |   | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 |      |       |   | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 08/06/21 14:36 | 08/09/21 12:29 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 |      |       |   | 08/06/21 14:36 | 08/09/21 12:29 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Benzo[a]anthracene      | 6.4       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Benzo[a]pyrene          | 4.4       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Benzo[b]fluoranthene    | 6.7       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Benzo[g,h,i]perylene    | 4.3       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Chrysene                | 4.5       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Fluorene                | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Phenanthrene            | ND        |           | 19       | 4.6 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Pyrene                  | 9.2       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 09:40 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 09:40 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 11     | FL F2     | 1.7 | 0.69 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 10:43 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.5   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 4847-P2 (3)

Lab Sample ID: 410-50151-3

Date Collected: 08/05/21 10:40

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 80.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 5.1 | 0.41 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| 1,2-Dichloroethane     | ND     |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Toluene                | ND     |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 4847-P2 (3)

Lab Sample ID: 410-50151-3

Date Collected: 08/05/21 10:40

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 80.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Naphthalene                 | ND     |           | 5.1 | 2.0  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Isopropylbenzene            | ND     |           | 5.1 | 0.41 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.1 | 0.41 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 12:52 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 118       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 12:52 | 1       |
| Toluene-d8 (Surr)            | 90        |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 12:52 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Benzo[a]anthracene   | 5.8    | J         | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Benzo[a]pyrene       | 6.1    | J         | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Benzo[b]fluoranthene | 6.4    | J         | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Chrysene             | 6.4    | J         | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Fluorene             | 5.1    | J         | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Phenanthrene         | 12     | J         | 20 | 4.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Pyrene               | 14     | J         | 20 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:02 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 90        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| Nitrobenzene-d5 (Surr)  | 76        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 10:02 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 10:02 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 15     |           | 1.6 | 0.63 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:35 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 19.1   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 4847-P1 (3)

Lab Sample ID: 410-50151-4

Date Collected: 08/05/21 10:55

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.7 | 0.45 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.7 | 0.68 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Toluene                     | ND     |           | 5.7 | 0.68 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 4847-P1 (3)

Lab Sample ID: 410-50151-4

Date Collected: 08/05/21 10:55

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Naphthalene            | ND     |           | 5.7 | 2.3  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Isopropylbenzene       | ND     |           | 5.7 | 0.45 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| 1,2-Dibromoethane      | ND     |           | 5.7 | 0.45 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:15 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 119       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 13:15 | 1       |
| Toluene-d8 (Surr)            | 91        |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 13:15 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Benzo[a]anthracene   | 4.8    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Benzo[a]pyrene       | 4.4    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Benzo[b]fluoranthene | 5.4    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Chrysene             | 4.6    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Fluorene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Pyrene               | 6.8    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:25 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| Nitrobenzene-d5 (Surr)  | 76        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 10:25 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 10:25 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 15     |           | 1.2 | 0.49 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.1   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 4847-P3 (3)

Lab Sample ID: 410-50151-5

Date Collected: 08/05/21 11:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 89.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 4.9 | 0.39 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Toluene                     | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Xylenes, Total              | ND     |           | 9.8 | 1.4  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Benzene                     | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Naphthalene                 | ND     |           | 4.9 | 2.0  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 4847-P3 (3)

Lab Sample ID: 410-50151-5

Date Collected: 08/05/21 11:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 89.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | ND        |           | 4.9      | 0.49 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Isopropylbenzene             | ND        |           | 4.9      | 0.39 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| 1,2-Dibromoethane            | ND        |           | 4.9      | 0.39 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 122       |           | 54 - 135 |      |       |   | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 |      |       |   | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |      |       |   | 08/06/21 14:36 | 08/09/21 13:38 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 |      |       |   | 08/06/21 14:36 | 08/09/21 13:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Benzo[a]anthracene      | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Benzo[a]pyrene          | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Chrysene                | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Fluorene                | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Phenanthrene            | ND        |           | 19       | 4.5 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Pyrene                  | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| Nitrobenzene-d5 (Surr)  | 77        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 10:47 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 10:47 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 8.5    |           | 1.2 | 0.48 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:22 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.7   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 1043-P3 (3)

Lab Sample ID: 410-50151-6

Date Collected: 08/05/21 11:35

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.8 | 0.62 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.8 | 0.93 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.8 | 0.78 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Toluene                     | ND     |           | 7.8 | 0.93 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.2  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.8 | 0.78 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Benzene                     | ND     |           | 7.8 | 0.78 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Naphthalene                 | ND     |           | 7.8 | 3.1  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.8 | 0.78 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Isopropylbenzene            | ND     |           | 7.8 | 0.62 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 1043-P3 (3)

Lab Sample ID: 410-50151-6

Date Collected: 08/05/21 11:35

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 7.8      | 0.62 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 117       |           | 54 - 135 |      |       |   | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 78        |           | 50 - 131 |      |       |   | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Dibromofluoromethane (Surr)  | 108       |           | 50 - 141 |      |       |   | 08/06/21 14:36 | 08/09/21 14:00 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 |      |       |   | 08/06/21 14:36 | 08/09/21 14:00 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Benzo[a]anthracene      | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Benzo[a]pyrene          | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Benzo[b]fluoranthene    | 5.6       | J         | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Chrysene                | 7.6       | J         | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Fluorene                | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Phenanthrene            | 62        |           | 21       | 5.0 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Pyrene                  | 8.4       | J         | 21       | 4.2 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 |     |       |   | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  |     |       |   | 08/12/21 18:24 | 08/13/21 12:35 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 |     |       |   | 08/12/21 18:24 | 08/13/21 12:35 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 9.7    |           | 1.5 | 0.61 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:25 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.6   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: DUP-2

Lab Sample ID: 410-50151-7

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.7 | 0.62 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.7 | 0.93 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Toluene                     | ND     |           | 7.7 | 0.93 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.2  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Benzene                     | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Naphthalene                 | ND     |           | 7.7 | 3.1  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Isopropylbenzene            | ND     |           | 7.7 | 0.62 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.7 | 0.62 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 16:39 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: DUP-2

Lab Sample ID: 410-50151-7

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.8

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 117       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 76        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 16:39 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 16:39 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Benzo[a]anthracene   | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Benzo[a]pyrene       | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Benzo[b]fluoranthene | 4.9    | J         | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Chrysene             | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Fluorene             | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Phenanthrene         | ND     |           | 21 | 5.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Pyrene               | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:10 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 4         | S1-       | 39 - 100 | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| Nitrobenzene-d5 (Surr)  | 1         | S1-       | 32 - 97  | 08/10/21 17:56 | 08/11/21 11:10 | 1       |
| p-Terphenyl-d14 (Surr)  | 24        | S1-       | 45 - 108 | 08/10/21 17:56 | 08/11/21 11:10 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 1.7 | 0.67 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:28 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.2   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 61 (2)

Lab Sample ID: 410-50151-8

Date Collected: 08/05/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 80.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.9 | 0.71 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Toluene                     | ND     |           | 5.9 | 0.71 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.6  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Benzene                     | 0.97   | J         | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Naphthalene                 | ND     |           | 5.9 | 2.4  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Isopropylbenzene            | ND     |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 14:23 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 119       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 14:23 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 14:23 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 61 (2)

Lab Sample ID: 410-50151-8

Date Collected: 08/05/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 80.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 92        |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 14:23 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 170    |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Benzo[a]anthracene   | 31     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Benzo[a]pyrene       | 32     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Benzo[b]fluoranthene | 51     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Benzo[g,h,i]perylene | 37     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Chrysene             | 42     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Fluorene             | ND     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Phenanthrene         | 93     |           | 21 | 4.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Pyrene               | 52     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:32 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 11:32 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 11:32 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 570    |           | 1.4 | 0.55 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:38 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 19.7   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 1043-P2 (3)

Lab Sample ID: 410-50151-9

Date Collected: 08/05/21 11:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.3 | 0.58 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.3 | 0.88 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Toluene                     | 0.94   | J         | 7.3 | 0.88 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.0  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Benzene                     | 1.9    | J         | 7.3 | 0.73 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Naphthalene                 | ND     |           | 7.3 | 2.9  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Isopropylbenzene            | ND     |           | 7.3 | 0.58 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.3 | 0.58 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 17:02 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 78        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 17:02 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 17:02 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 1043-P2 (3)

Lab Sample ID: 410-50151-9

Date Collected: 08/05/21 11:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 38     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Benzo[a]anthracene   | 26     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Benzo[a]pyrene       | 31     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Benzo[b]fluoranthene | 49     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Benzo[g,h,i]perylene | 32     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Chrysene             | 39     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Fluorene             | 7.7 J  |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Phenanthrene         | 100    |           | 21 | 5.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Pyrene               | 56     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 00:43 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 00:43 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 00:43 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 490    |           | 1.6 | 0.62 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:02 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.9   |           | 1.0 | 1.0 | %    | — |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 11 (2)

Lab Sample ID: 410-50151-10

Date Collected: 08/04/21 08:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.5 | 0.44 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.5 | 0.67 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Toluene                     | ND     |           | 5.5 | 0.67 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Benzene                     | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Naphthalene                 | ND     |           | 5.5 | 2.2  | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Isopropylbenzene            | ND     |           | 5.5 | 0.44 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.5 | 0.44 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:25 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 117       |           | 54 - 135 | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/06/21 14:49 | 08/09/21 17:25 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 | 08/06/21 14:49 | 08/09/21 17:25 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Benzo[a]anthracene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 11 (2)

Lab Sample ID: 410-50151-10

Date Collected: 08/04/21 08:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene       | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Chrysene             | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Fluorene             | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.5 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Pyrene               | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 00:28 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 00:28 | 1       |
| p-Terphenyl-d14 (Surr)  | 96        |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 00:28 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 1.5 | 0.59 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:06 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.5   |           | 1.0 | 1.0 | %    | - |          | 08/06/21 09:02 | 1       |

Client Sample ID: 1248-P5 (3)

Lab Sample ID: 410-50151-11

Date Collected: 08/04/21 09:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 290 | 23  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| 1,2-Dichloroethane          | ND     |           | 290 | 35  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 290 | 29  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Toluene                     | ND     |           | 290 | 35  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Xylenes, Total              | ND     |           | 580 | 81  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Methyl tertiary butyl ether | ND     |           | 290 | 29  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Benzene                     | ND     |           | 290 | 29  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Naphthalene                 | ND     |           | 290 | 120 | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 290 | 29  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Isopropylbenzene            | ND     |           | 290 | 23  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| 1,2-Dibromoethane           | ND     |           | 290 | 23  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 00:51 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 85        |           | 54 - 135 | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Dibromofluoromethane (Surr)  | 85        |           | 50 - 141 | 08/06/21 14:43 | 08/10/21 00:51 | 50      |
| Toluene-d8 (Surr)            | 82        |           | 52 - 141 | 08/06/21 14:43 | 08/10/21 00:51 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 1248-P5 (3)

Lab Sample ID: 410-50151-11

Date Collected: 08/04/21 09:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Chrysene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Fluorene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.5 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Pyrene               | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 01:39 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 71        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 01:39 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 01:39 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 9.1    |           | 1.2 | 0.48 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:38 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.1   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 14 (2)

Lab Sample ID: 410-50151-12

Date Collected: 08/04/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 6.4 | 0.51 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.4 | 0.77 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| 1,3,5-Trimethylbenzene      | 1.7    | J         | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Toluene                     | ND     |           | 6.4 | 0.77 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.8  | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Benzene                     | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Naphthalene                 | ND     |           | 6.4 | 2.6  | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| 1,2,4-Trimethylbenzene      | 2.5    | J         | 6.4 | 0.64 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Isopropylbenzene            | 0.59   | J         | 6.4 | 0.51 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| 1,2-Dibromoethane           | ND     |           | 6.4 | 0.51 | ug/Kg | ✱ | 08/06/21 14:49 | 08/09/21 17:47 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/06/21 14:49 | 08/09/21 17:47 | 1       |
| Toluene-d8 (Surr)            | 91        |           | 52 - 141 | 08/06/21 14:49 | 08/09/21 17:47 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Chrysene             | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 14 (2)

Lab Sample ID: 410-50151-12

Date Collected: 08/04/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Fluorene                | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Phenanthrene            | ND        |           | 19       | 4.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Pyrene                  | 9.5       | J         | 19       | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 |     |       |   | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  |     |       |   | 08/13/21 09:46 | 08/14/21 02:02 | 1       |
| p-Terphenyl-d14 (Surr)  | 95        |           | 45 - 108 |     |       |   | 08/13/21 09:46 | 08/14/21 02:02 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 8.9    |           | 1.2 | 0.47 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.0   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 1248-P4 (3)

Lab Sample ID: 410-50151-13

Date Collected: 08/04/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 86.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 6.2      | 0.49 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| 1,2-Dichloroethane           | ND        |           | 6.2      | 0.74 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Toluene                      | ND        |           | 6.2      | 0.74 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Xylenes, Total               | ND        |           | 12       | 1.7  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Benzene                      | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Naphthalene                  | ND        |           | 6.2      | 2.5  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Isopropylbenzene             | ND        |           | 6.2      | 0.49 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| 1,2-Dibromoethane            | ND        |           | 6.2      | 0.49 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 119       |           | 54 - 135 |      |       |   | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 |      |       |   | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 14:46 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 14:46 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Chrysene             | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Fluorene             | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.6 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 1248-P4 (3)

Lab Sample ID: 410-50151-13

Date Collected: 08/04/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 86.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 87        |           | 39 - 100 |     |       |   | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  |     |       |   | 08/13/21 09:46 | 08/14/21 02:26 | 1       |
| p-Terphenyl-d14 (Surr)  | 100       |           | 45 - 108 |     |       |   | 08/13/21 09:46 | 08/14/21 02:26 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 17     |           | 1.2 | 0.50 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:18 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.5   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: 1248-P3 (3)

Lab Sample ID: 410-50151-14

Date Collected: 08/04/21 10:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 5.7      | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| 1,2-Dichloroethane           | ND        |           | 5.7      | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 5.7      | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Toluene                      | ND        |           | 5.7      | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.6  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.7      | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Benzene                      | ND        |           | 5.7      | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Naphthalene                  | ND        |           | 5.7      | 2.3  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.7      | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Isopropylbenzene             | ND        |           | 5.7      | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.7      | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 |      |       |   | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 |      |       |   | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 18:10 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 18:10 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Chrysene             | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Fluorene             | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Pyrene               | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 02:49 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 1248-P3 (3)

Lab Sample ID: 410-50151-14

Date Collected: 08/04/21 10:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.1

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| Nitrobenzene-d5 (Surr)  | 77        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 02:49 | 1       |
| p-Terphenyl-d14 (Surr)  | 103       |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 02:49 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 12     |           | 1.7 | 0.67 | mg/Kg | ☆ | 08/06/21 11:08 | 08/10/21 13:34 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.9   |           | 1.0 | 1.0 | %    | - |          | 08/06/21 09:02 | 1       |

Client Sample ID: 1248-P2 (3)

Lab Sample ID: 410-50151-15

Date Collected: 08/04/21 10:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 92.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Toluene                     | ND     |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Benzene                     | ND     |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Naphthalene                 | ND     |           | 5.5 | 2.2  | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Isopropylbenzene            | ND     |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 118       |           | 54 - 135 | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/06/21 13:58 | 08/09/21 15:08 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 | 08/06/21 13:58 | 08/09/21 15:08 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Benzo[a]anthracene   | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Benzo[a]pyrene       | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Benzo[b]fluoranthene | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Chrysene             | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Fluorene             | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Phenanthrene         | ND     |           | 18 | 4.3 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Pyrene               | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:13 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 03:13 | 1       |
| p-Terphenyl-d14 (Surr)  | 103       |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 03:13 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Client Sample ID: 1248-P2 (3)

## Lab Sample ID: 410-50151-15

Date Collected: 08/04/21 10:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 92.2

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 1.2 | 0.49 | mg/Kg | ☆ | 08/06/21 11:08 | 08/10/21 13:21 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.8    |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

## Client Sample ID: DUP-1

## Lab Sample ID: 410-50151-16

Date Collected: 08/04/21 00:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.5

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.9 | 0.47 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.9 | 0.71 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Toluene                     | ND     |           | 5.9 | 0.71 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.7  | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.9 | 0.59 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Benzene                     | ND     |           | 5.9 | 0.59 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Naphthalene                 | ND     |           | 5.9 | 2.4  | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Isopropylbenzene            | ND     |           | 5.9 | 0.47 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.9 | 0.47 | ug/Kg | ☆ | 08/06/21 13:58 | 08/09/21 15:31 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 120       |           | 54 - 135 | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 08/06/21 13:58 | 08/09/21 15:31 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 | 08/06/21 13:58 | 08/09/21 15:31 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Chrysene             | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Fluorene             | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.5 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Pyrene               | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/13/21 09:46 | 08/14/21 03:37 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 86        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 03:37 | 1       |
| p-Terphenyl-d14 (Surr)  | 101       |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 03:37 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 15     |           | 1.2 | 0.50 | mg/Kg | ☆ | 08/06/21 10:20 | 08/10/21 11:15 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: DUP-1

Lab Sample ID: 410-50151-16

Date Collected: 08/04/21 00:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.5

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.5   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 1 (2)

Lab Sample ID: 410-50151-17

Date Collected: 08/04/21 10:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 89.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| 1,2-Dichloroethane           | ND        |           | 5.5      | 0.66 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Toluene                      | ND        |           | 5.5      | 0.66 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Benzene                      | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Naphthalene                  | ND        |           | 5.5      | 2.2  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Isopropylbenzene             | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 120       |           | 54 - 135 |      |       |   | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 |      |       |   | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 19:18 | 1       |
| Toluene-d8 (Surr)            | 91        |           | 52 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 19:18 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Benzo[a]anthracene      | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Benzo[a]pyrene          | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Chrysene                | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Fluorene                | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Phenanthrene            | ND        |           | 19       | 4.5 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Pyrene                  | ND        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 88        |           | 39 - 100 |     |       |   | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 77        |           | 32 - 97  |     |       |   | 08/13/21 09:46 | 08/14/21 04:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 102       |           | 45 - 108 |     |       |   | 08/13/21 09:46 | 08/14/21 04:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 1.3 | 0.50 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:28 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.0   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: 1248-P1 (3)

Lab Sample ID: 410-50151-18

Date Collected: 08/04/21 10:35

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Toluene                     | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.6  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Benzene                     | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Naphthalene                 | ND     |           | 5.8 | 2.3  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Isopropylbenzene            | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 15:54 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/06/21 13:58 | 08/09/21 15:54 | 1       |
| Toluene-d8 (Surr)            | 91        |           | 52 - 141 | 08/06/21 13:58 | 08/09/21 15:54 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Benzo[a]anthracene   | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Benzo[a]pyrene       | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Benzo[b]fluoranthene | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Chrysene             | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Fluorene             | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Phenanthrene         | ND     |           | 20 | 4.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Pyrene               | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:24 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 86        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 04:24 | 1       |
| p-Terphenyl-d14 (Surr)  | 101       |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 04:24 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 17     |           | 1.2 | 0.49 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:25 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.0   |           | 1.0 | 1.0 | %    | — |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 2 (2)

Lab Sample ID: 410-50151-19

Date Collected: 08/04/21 11:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     | *3        | 2.3 | 0.18 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| 1,2-Dichloroethane | ND     | *3        | 2.3 | 0.28 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 2 (2)

Lab Sample ID: 410-50151-19

Date Collected: 08/04/21 11:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        | *3        | 2.3      | 0.23 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Toluene                      | ND        | *3        | 2.3      | 0.28 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Xylenes, Total               | ND        | *3        | 4.6      | 0.64 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Methyl tertiary butyl ether  | ND        | *3        | 2.3      | 0.23 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Benzene                      | ND        | *3        | 2.3      | 0.23 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Naphthalene                  | ND        | *3        | 2.3      | 0.92 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| 1,2,4-Trimethylbenzene       | ND        | *3        | 2.3      | 0.23 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Isopropylbenzene             | ND        | *3        | 2.3      | 0.18 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| 1,2-Dibromoethane            | ND        | *3        | 2.3      | 0.18 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 116       | *3        | 54 - 135 |      |       |   | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 78        | *3        | 50 - 131 |      |       |   | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Dibromofluoromethane (Surr)  | 103       | *3        | 50 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 18:33 | 1       |
| Toluene-d8 (Surr)            | 93        | *3        | 52 - 141 |      |       |   | 08/06/21 13:58 | 08/09/21 18:33 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 30        |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Benzo[a]anthracene      | 250       |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Benzo[a]pyrene          | 220       |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Benzo[b]fluoranthene    | 370       |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Benzo[g,h,i]perylene    | 180       |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Chrysene                | 300       |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Fluorene                | 12 J      |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Phenanthrene            | 97        |           | 19       | 4.5 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Pyrene                  | 410       |           | 19       | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 |     |       |   | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 32 - 97  |     |       |   | 08/13/21 09:46 | 08/14/21 04:48 | 1       |
| p-Terphenyl-d14 (Surr)  | 93        |           | 45 - 108 |     |       |   | 08/13/21 09:46 | 08/14/21 04:48 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 25     |           | 1.2 | 0.49 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:18 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.6   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 3 (2)

Lab Sample ID: 410-50151-20

Date Collected: 08/04/21 11:15

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 76.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| 1,2-Dichloroethane     | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Toluene                | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 3 (2)

Lab Sample ID: 410-50151-20

Date Collected: 08/04/21 11:15

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 76.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 12  | 1.6  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Benzene                     | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Naphthalene                 | ND     |           | 5.8 | 2.3  | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Isopropylbenzene            | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/09/21 16:17 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/06/21 13:58 | 08/09/21 16:17 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/06/21 13:58 | 08/09/21 16:17 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Benzo[a]anthracene   | ND     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Benzo[a]pyrene       | ND     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Benzo[b]fluoranthene | ND     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Chrysene             | 5.6    | J         | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Fluorene             | ND     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Phenanthrene         | ND     |           | 22 | 5.2 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Pyrene               | 51     |           | 22 | 4.3 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:11 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 70        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 05:11 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 05:11 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 19     |           | 1.4 | 0.56 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 23.1   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:02 | 1       |

Client Sample ID: Pipe 5 (2)

Lab Sample ID: 410-50151-21

Date Collected: 08/04/21 11:20

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 89.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 330 | 26  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| 1,2-Dichloroethane          | ND     |           | 330 | 39  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Toluene                     | ND     |           | 330 | 39  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Xylenes, Total              | ND     |           | 650 | 91  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Methyl tertiary butyl ether | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 5 (2)

Lab Sample ID: 410-50151-21

Date Collected: 08/04/21 11:20

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 89.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Naphthalene            | ND     |           | 330 | 130 | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| 1,2,4-Trimethylbenzene | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Isopropylbenzene       | ND     |           | 330 | 26  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| 1,2-Dibromoethane      | ND     |           | 330 | 26  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 01:12 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/06/21 13:30 | 08/10/21 01:12 | 50      |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/06/21 13:30 | 08/10/21 01:12 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Chrysene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Fluorene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.4 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Pyrene               | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/13/21 09:46 | 08/14/21 05:34 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  | 08/13/21 09:46 | 08/14/21 05:34 | 1       |
| p-Terphenyl-d14 (Surr)  | 97        |           | 45 - 108 | 08/13/21 09:46 | 08/14/21 05:34 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 11     |           | 1.5 | 0.61 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:02 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.0   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 7 (2)

Lab Sample ID: 410-50151-22

Date Collected: 08/04/21 11:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 20000  |           | 340 | 27  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| 1,2-Dichloroethane          | ND     |           | 340 | 41  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| 1,3,5-Trimethylbenzene      | 3100   |           | 340 | 34  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Toluene                     | 99 J   |           | 340 | 41  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Xylenes, Total              | 21000  |           | 680 | 95  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Methyl tertiary butyl ether | ND     |           | 340 | 34  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Benzene                     | 58 J   |           | 340 | 34  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Naphthalene                 | 11000  |           | 340 | 140 | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 7 (2)

Lab Sample ID: 410-50151-22

Date Collected: 08/04/21 11:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Isopropylbenzene             | 7300      |           | 340      | 27  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| 1,2-Dibromoethane            | ND        |           | 340      | 27  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 54 - 135 |     |       |   | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 |     |       |   | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Dibromofluoromethane (Surr)  | 93        |           | 50 - 141 |     |       |   | 08/06/21 14:43 | 08/10/21 01:33 | 50      |
| Toluene-d8 (Surr)            | 117       |           | 52 - 141 |     |       |   | 08/06/21 14:43 | 08/10/21 01:33 | 50      |

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 150000    |           | 6800     | 680 | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 14:04 | 1000    |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 80        |           | 54 - 135 |     |       |   | 08/06/21 14:43 | 08/10/21 14:04 | 1000    |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 50 - 131 |     |       |   | 08/06/21 14:43 | 08/10/21 14:04 | 1000    |
| Dibromofluoromethane (Surr)  | 78        |           | 50 - 141 |     |       |   | 08/06/21 14:43 | 08/10/21 14:04 | 1000    |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 |     |       |   | 08/06/21 14:43 | 08/10/21 14:04 | 1000    |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Benzo[a]anthracene      | 8.3 J     |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Benzo[a]pyrene          | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Chrysene                | 13 J      |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Fluorene                | 1100      |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Phenanthrene            | 1900      |           | 19       | 4.6 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Pyrene                  | 200       |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 72        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| Nitrobenzene-d5 (Surr)  | 80        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 11:55 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 11:55 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 9.3    |           | 1.3 | 0.53 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:15 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.2   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 8 (2)

Lab Sample ID: 410-50151-23

Date Collected: 08/04/21 11:40

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,2-Dichloroethane     | ND     |           | 340 | 40  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| 1,3,5-Trimethylbenzene | 9400   |           | 340 | 34  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 8 (2)

Lab Sample ID: 410-50151-23

Date Collected: 08/04/21 11:40

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Toluene                     | 97     | J         | 340 | 40  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Xylenes, Total              | 23000  |           | 670 | 94  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Methyl tertiary butyl ether | ND     |           | 340 | 34  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Benzene                     | 37     | J         | 340 | 34  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Naphthalene                 | 11000  |           | 340 | 130 | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Isopropylbenzene            | 6300   |           | 340 | 27  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| 1,2-Dibromoethane           | ND     |           | 340 | 27  | ug/Kg | ✱ | 08/06/21 14:43 | 08/10/21 01:53 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 54 - 135 | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Dibromofluoromethane (Surr)  | 82        |           | 50 - 141 | 08/06/21 14:43 | 08/10/21 01:53 | 50      |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 | 08/06/21 14:43 | 08/10/21 01:53 | 50      |

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | 44000     |           | 6700     | 540 | ug/Kg | ☼ | 08/06/21 14:43 | 08/10/21 14:26 | 1000    |
| 1,2,4-Trimethylbenzene       | 150000    |           | 6700     | 670 | ug/Kg | ☼ | 08/06/21 14:43 | 08/10/21 14:26 | 1000    |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 93        |           | 54 - 135 |     |       |   | 08/06/21 14:43 | 08/10/21 14:26 | 1000    |
| 4-Bromofluorobenzene (Surr)  | 107       |           | 50 - 131 |     |       |   | 08/06/21 14:43 | 08/10/21 14:26 | 1000    |
| Dibromofluoromethane (Surr)  | 81        |           | 50 - 141 |     |       |   | 08/06/21 14:43 | 08/10/21 14:26 | 1000    |
| Toluene-d8 (Surr)            | 104       |           | 52 - 141 |     |       |   | 08/06/21 14:43 | 08/10/21 14:26 | 1000    |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 450       | FL F2     | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Benzo[a]anthracene      | 9.9       | J FL F2   | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Benzo[a]pyrene          | 4.2       | J FL F2   | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Benzo[b]fluoranthene    | 4.1       | J FL F2   | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Benzo[g,h,i]perylene    | ND        | FL F2     | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Chrysene                | 16        | J FL F2   | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Fluorene                | 1500      | FL F2     | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Phenanthrene            | 3400      | FL F2     | 19       | 4.6 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Pyrene                  | 310       | FL F2     | 19       | 3.8 | ug/Kg | ☼ | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 54        |           | 39 - 100 |     |       |   | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  |     |       |   | 08/10/21 09:43 | 08/12/21 01:05 | 1       |
| p-Terphenyl-d14 (Surr)  | 75        |           | 45 - 108 |     |       |   | 08/10/21 09:43 | 08/12/21 01:05 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 1.4 | 0.57 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 12:04 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.7   |           | 1.0 | 1.0 | %    | - |          | 08/06/21 09:31 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 6 (2)

Lab Sample ID: 410-50151-24

Date Collected: 08/04/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 84.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.9 | 0.71 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Toluene                     | ND     |           | 5.9 | 0.71 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.7  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Benzene                     | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Naphthalene                 | ND     |           | 5.9 | 2.4  | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Isopropylbenzene            | ND     |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/06/21 14:36 | 08/09/21 18:55 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/06/21 14:36 | 08/09/21 18:55 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/06/21 14:36 | 08/09/21 18:55 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Benzo[a]anthracene   | 8.9    | J         | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Benzo[a]pyrene       | 11     | J         | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Benzo[b]fluoranthene | 14     | J         | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Benzo[g,h,i]perylene | 8.4    | J         | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Chrysene             | 11     | J         | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Fluorene             | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Phenanthrene         | 16     | J         | 19 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Pyrene               | 17     | J         | 19 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:12 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 86        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 02:12 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 02:12 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 14     |           | 1.5 | 0.58 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:06 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.2   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 10 (2)

Lab Sample ID: 410-50151-25

Date Collected: 08/04/21 12:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | 4600   |           | 320 | 26  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| 1,2-Dichloroethane | ND     |           | 320 | 39  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 10 (2)

Lab Sample ID: 410-50151-25

Date Collected: 08/04/21 12:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 69        | J         | 320      | 32  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Toluene                      | 43        | J         | 320      | 39  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Xylenes, Total               | 140       | J         | 650      | 91  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 320      | 32  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Benzene                      | ND        |           | 320      | 32  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Naphthalene                  | 230       | J         | 320      | 130 | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| 1,2,4-Trimethylbenzene       | 810       |           | 320      | 32  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Isopropylbenzene             | 4300      |           | 320      | 26  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| 1,2-Dibromoethane            | ND        |           | 320      | 26  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 |     |       |   | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| 4-Bromofluorobenzene (Surr)  | 74        |           | 50 - 131 |     |       |   | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Dibromofluoromethane (Surr)  | 96        |           | 50 - 141 |     |       |   | 08/06/21 13:30 | 08/10/21 02:14 | 50      |
| Toluene-d8 (Surr)            | 87        |           | 52 - 141 |     |       |   | 08/06/21 13:30 | 08/10/21 02:14 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 360       |           | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Benzo[a]anthracene      | 8.2       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Benzo[a]pyrene          | 5.4       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Benzo[b]fluoranthene    | 4.8       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Benzo[g,h,i]perylene    | 4.5       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Chrysene                | 15        | J         | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Fluorene                | 1700      |           | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Phenanthrene            | 2500      |           | 19       | 4.6 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Pyrene                  | 230       |           | 19       | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 69        |           | 39 - 100 |     |       |   | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| Nitrobenzene-d5 (Surr)  | 55        |           | 32 - 97  |     |       |   | 08/10/21 09:43 | 08/12/21 02:35 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 |     |       |   | 08/10/21 09:43 | 08/12/21 02:35 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 32     |           | 1.4 | 0.57 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:57 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.6   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 9 (2)

Lab Sample ID: 410-50151-26

Date Collected: 08/04/21 12:15

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 5600   |           | 290 | 23  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| 1,2-Dichloroethane     | ND     |           | 290 | 35  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| 1,3,5-Trimethylbenzene | 84     | J         | 290 | 29  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| Toluene                | ND     |           | 290 | 35  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 9 (2)

Lab Sample ID: 410-50151-26

Date Collected: 08/04/21 12:15

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                       | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>         | <b>360</b>  | <b>J</b>  | 580 | 81  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| Methyl tertiary butyl ether   | ND          |           | 290 | 29  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| Benzene                       | ND          |           | 290 | 29  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| <b>Naphthalene</b>            | <b>2500</b> |           | 290 | 120 | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| <b>1,2,4-Trimethylbenzene</b> | <b>260</b>  | <b>J</b>  | 290 | 29  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| <b>Isopropylbenzene</b>       | <b>2100</b> |           | 290 | 23  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| 1,2-Dibromoethane             | ND          |           | 290 | 23  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:35 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 08/06/21 13:30 | 08/10/21 02:35 | 50      |
| Toluene-d8 (Surr)            | 85        |           | 52 - 141 | 08/06/21 13:30 | 08/10/21 02:35 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result      | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>230</b>  |           | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>14</b>   | <b>J</b>  | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>12</b>   | <b>J</b>  | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>14</b>   | <b>J</b>  | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>11</b>   | <b>J</b>  | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Chrysene</b>             | <b>19</b>   |           | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Fluorene</b>             | <b>870</b>  |           | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Phenanthrene</b>         | <b>1400</b> |           | 18 | 4.4 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| <b>Pyrene</b>               | <b>140</b>  |           | 18 | 3.7 | ug/Kg | ☆ | 08/10/21 09:43 | 08/12/21 02:57 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 63        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| Nitrobenzene-d5 (Surr)  | 56        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 02:57 | 1       |
| p-Terphenyl-d14 (Surr)  | 73        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 02:57 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>15</b> |           | 1.4 | 0.55 | mg/Kg | ☆ | 08/06/21 10:20 | 08/10/21 12:01 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>10.0</b> |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 12 (2)

Lab Sample ID: 410-50151-27

Date Collected: 08/04/21 12:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                       | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Ethylbenzene</b>           | <b>320</b>  | <b>J</b>  | 360 | 29  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| 1,2-Dichloroethane            | ND          |           | 360 | 44  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| <b>1,3,5-Trimethylbenzene</b> | <b>1100</b> |           | 360 | 36  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| Toluene                       | ND          |           | 360 | 44  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| <b>Xylenes, Total</b>         | <b>940</b>  |           | 730 | 100 | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| Methyl tertiary butyl ether   | ND          |           | 360 | 36  | ug/Kg | ☆ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 12 (2)

Lab Sample ID: 410-50151-27

Date Collected: 08/04/21 12:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 360 | 36  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| Naphthalene            | 1200   |           | 360 | 150 | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| 1,2,4-Trimethylbenzene | 2700   |           | 360 | 36  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| Isopropylbenzene       | 260    | J         | 360 | 29  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| 1,2-Dibromoethane      | ND     |           | 360 | 29  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 02:56 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108       |           | 54 - 135 | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 50 - 131 | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/06/21 13:30 | 08/10/21 02:56 | 50      |
| Toluene-d8 (Surr)            | 85        |           | 52 - 141 | 08/06/21 13:30 | 08/10/21 02:56 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 220    |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Benzo[a]anthracene   | 8.9    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Benzo[a]pyrene       | 11     | J         | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Benzo[b]fluoranthene | 17     | J         | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Benzo[g,h,i]perylene | 11     | J         | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Chrysene             | 17     | J         | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Fluorene             | 540    |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Phenanthrene         | 410    |           | 19 | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Pyrene               | 330    |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:20 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 03:20 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 03:20 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 1.3 | 0.53 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 12:11 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.8   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 13 (2)

Lab Sample ID: 410-50151-28

Date Collected: 08/04/21 13:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 2300   |           | 310 | 25  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| 1,2-Dichloroethane          | ND     |           | 310 | 37  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 310 | 31  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Toluene                     | ND     |           | 310 | 37  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Xylenes, Total              | ND     |           | 620 | 87  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Methyl tertiary butyl ether | ND     |           | 310 | 31  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Benzene                     | ND     |           | 310 | 31  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Naphthalene                 | 2900   |           | 310 | 120 | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 13 (2)

Lab Sample ID: 410-50151-28

Date Collected: 08/04/21 13:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene | 90     | J         | 310 | 31  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Isopropylbenzene       | 3600   |           | 310 | 25  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| 1,2-Dibromoethane      | ND     |           | 310 | 25  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:16 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 54 - 135 | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| 4-Bromofluorobenzene (Surr)  | 125       |           | 50 - 131 | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/06/21 13:30 | 08/10/21 03:16 | 50      |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/06/21 13:30 | 08/10/21 03:16 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 190    |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Benzo[a]anthracene   | 6.2    | J         | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Benzo[a]pyrene       | 3.7    | J         | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Benzo[b]fluoranthene | ND     |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Benzo[g,h,i]perylene | 5.5    | J         | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Chrysene             | 11     | J         | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Fluorene             | 780    |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Phenanthrene         | 1300   |           | 18 | 4.4 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Pyrene               | 180    |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 03:42 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| Nitrobenzene-d5 (Surr)  | 83        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 03:42 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 03:42 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 12     |           | 1.2 | 0.49 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 12:07 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10     |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 17 (2)

Lab Sample ID: 410-50151-29

Date Collected: 08/04/21 13:20

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 81.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 270 | 21  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| 1,2-Dichloroethane          | ND     |           | 270 | 32  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 270 | 27  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Toluene                     | ND     |           | 270 | 32  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Xylenes, Total              | ND     |           | 540 | 75  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Methyl tertiary butyl ether | ND     |           | 270 | 27  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Benzene                     | ND     |           | 270 | 27  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Naphthalene                 | ND     |           | 270 | 110 | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| 1,2,4-Trimethylbenzene      | 27     | J         | 270 | 27  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Isopropylbenzene            | ND     |           | 270 | 21  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 17 (2)

Lab Sample ID: 410-50151-29

Date Collected: 08/04/21 13:20

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 81.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 270      | 21  | ug/Kg | ✱ | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 90        |           | 54 - 135 |     |       |   | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 |     |       |   | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |     |       |   | 08/06/21 13:30 | 08/10/21 03:37 | 50      |
| Toluene-d8 (Surr)            | 82        |           | 52 - 141 |     |       |   | 08/06/21 13:30 | 08/10/21 03:37 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 11        | J         | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Benzo[a]anthracene      | 16        | J         | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Benzo[a]pyrene          | 15        | J         | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Benzo[b]fluoranthene    | 23        |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Benzo[g,h,i]perylene    | 14        | J         | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Chrysene                | 26        |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Fluorene                | 11        | J         | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Phenanthrene            | 31        |           | 20       | 4.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Pyrene                  | 22        |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 |     |       |   | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  |     |       |   | 08/10/21 09:43 | 08/12/21 04:05 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 |     |       |   | 08/10/21 09:43 | 08/12/21 04:05 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 16     |           | 1.7 | 0.66 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 11:54 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 18.2   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 16 (2)

Lab Sample ID: 410-50151-30

Date Collected: 08/04/21 14:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 82.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.7 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.7 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Toluene                     | ND     |           | 5.7 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Benzene                     | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Naphthalene                 | ND     |           | 5.7 | 2.3  | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Isopropylbenzene            | ND     |           | 5.7 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.7 | 0.46 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:28 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 16 (2)

Lab Sample ID: 410-50151-30

Date Collected: 08/04/21 14:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 82.3

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 119       |           | 54 - 135 | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/06/21 13:58 | 08/10/21 12:28 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 | 08/06/21 13:58 | 08/10/21 12:28 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Benzo[a]anthracene   | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Benzo[a]pyrene       | 4.5    | J         | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Benzo[b]fluoranthene | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Chrysene             | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Fluorene             | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Phenanthrene         | ND     |           | 20 | 4.8 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Pyrene               | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:27 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 87        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 04:27 | 1       |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 04:27 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 4.0    |           | 1.4 | 0.54 | mg/Kg | ✱ | 08/06/21 10:20 | 08/10/21 12:14 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 17.7   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Pipe 60 (2)

Lab Sample ID: 410-50151-31

Date Collected: 08/05/21 12:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 79.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 6.9 | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.9 | 0.82 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.9 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Toluene                     | 3.9    | J         | 6.9 | 0.82 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Xylenes, Total              | 3.8    | J         | 14  | 1.9  | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.9 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Benzene                     | 2.0    | J         | 6.9 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Naphthalene                 | 5.0    | J         | 6.9 | 2.7  | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.9 | 0.69 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Isopropylbenzene            | ND     |           | 6.9 | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| 1,2-Dibromoethane           | ND     |           | 6.9 | 0.55 | ug/Kg | ✱ | 08/06/21 13:58 | 08/10/21 12:50 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 08/06/21 13:58 | 08/10/21 12:50 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/06/21 13:58 | 08/10/21 12:50 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

Client Sample ID: Pipe 60 (2)

Lab Sample ID: 410-50151-31

Date Collected: 08/05/21 12:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 79.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 98        |           | 52 - 141 | 08/06/21 13:58 | 08/10/21 12:50 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 130    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Benzo[a]anthracene   | 10     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Benzo[a]pyrene       | 10     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Benzo[b]fluoranthene | 13     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Benzo[g,h,i]perylene | 8.5    | J         | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Chrysene             | 23     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Fluorene             | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Phenanthrene         | 110    |           | 21 | 5.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Pyrene               | 22     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 04:50 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 04:50 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 04:50 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 190    |           | 1.3 | 0.53 | mg/Kg | ✱ | 08/06/21 11:08 | 08/10/21 13:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.4   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 09:31 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-50151-32

Date Collected: 08/04/21 00:00

Matrix: Water

Date Received: 08/05/21 16:02

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:31 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/10/21 20:31 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:31 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:31 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/10/21 20:31 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/10/21 20:31 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:31 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:31 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:31 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:31 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 80 - 120 |          | 08/10/21 20:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 80 - 120 |          | 08/10/21 20:31 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 80 - 120 |          | 08/10/21 20:31 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 80 - 120 |          | 08/10/21 20:31 | 1       |

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# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-50151-1       | 4847-P6 (3)            | 114  | 87              | 102              | 93              |
| 410-50151-2       | Pipe 15 (2)            | 117  | 86              | 103              | 92              |
| 410-50151-3       | 4847-P2 (3)            | 118  | 87              | 103              | 90              |
| 410-50151-4       | 4847-P1 (3)            | 119  | 88              | 105              | 91              |
| 410-50151-5       | 4847-P3 (3)            | 122  | 88              | 106              | 92              |
| 410-50151-6       | 1043-P3 (3)            | 117  | 78              | 108              | 100             |
| 410-50151-7       | DUP-2                  | 117  | 76              | 106              | 102             |
| 410-50151-8       | Pipe 61 (2)            | 119  | 86              | 104              | 92              |
| 410-50151-9       | 1043-P2 (3)            | 116  | 78              | 104              | 100             |
| 410-50151-10      | Pipe 11 (2)            | 117  | 91              | 103              | 92              |
| 410-50151-11      | 1248-P5 (3)            | 85   | 84              | 85               | 82              |
| 410-50151-12      | Pipe 14 (2)            | 112  | 93              | 101              | 91              |
| 410-50151-13      | 1248-P4 (3)            | 119  | 88              | 106              | 93              |
| 410-50151-14      | 1248-P3 (3)            | 107  | 84              | 98               | 96              |
| 410-50151-15      | 1248-P2 (3)            | 118  | 88              | 105              | 92              |
| 410-50151-16      | DUP-1                  | 120  | 86              | 107              | 92              |
| 410-50151-17      | Pipe 1 (2)             | 120  | 89              | 103              | 91              |
| 410-50151-18      | 1248-P1 (3)            | 116  | 91              | 106              | 91              |
| 410-50151-19      | Pipe 2 (2)             | 116 *3   | 78 *3           | 103 *3           | 93 *3           |
| 410-50151-20      | Pipe 3 (2)             | 111  | 84              | 105              | 97              |
| 410-50151-21      | Pipe 5 (2)             | 103  | 89              | 100              | 96              |
| 410-50151-22      | Pipe 7 (2)             | 97   | 98              | 93               | 117             |
| 410-50151-22 - DL | Pipe 7 (2)             | 80   | 104             | 78               | 96              |
| 410-50151-23      | Pipe 8 (2)             | 104  | 91              | 82               | 101             |
| 410-50151-23 - DL | Pipe 8 (2)             | 93   | 107             | 81               | 104             |
| 410-50151-24      | Pipe 6 (2)             | 112  | 87              | 100              | 96              |
| 410-50151-25      | Pipe 10 (2)            | 101  | 74              | 96               | 87              |
| 410-50151-26      | Pipe 9 (2)             | 103  | 93              | 97               | 85              |
| 410-50151-27      | Pipe 12 (2)            | 108  | 100             | 103              | 85              |
| 410-50151-28      | Pipe 13 (2)            | 105  | 125             | 99               | 98              |
| 410-50151-29      | Pipe 17 (2)            | 90   | 96              | 101              | 82              |
| 410-50151-30      | Pipe 16 (2)            | 119  | 87              | 103              | 92              |
| 410-50151-31      | Pipe 60 (2)            | 113  | 82              | 102              | 98              |
| LCS 410-158050/4  | Lab Control Sample     | 106  | 94              | 96               | 97              |
| LCS 410-158385/4  | Lab Control Sample     | 102  | 89              | 99               | 92              |
| LCS 410-158503/5  | Lab Control Sample     | 90   | 98              | 93               | 98              |
| LCS 410-158553/4  | Lab Control Sample     | 108  | 95              | 97               | 97              |
| LCSD 410-158050/5 | Lab Control Sample Dup | 108  | 93              | 98               | 97              |
| LCSD 410-158385/5 | Lab Control Sample Dup | 102  | 88              | 98               | 91              |
| LCSD 410-158503/6 | Lab Control Sample Dup | 89   | 98              | 92               | 99              |
| LCSD 410-158553/5 | Lab Control Sample Dup | 103  | 94              | 95               | 97              |
| MB 410-158050/7   | Method Blank           | 107  | 88              | 100              | 92              |
| MB 410-158385/7   | Method Blank           | 102  | 88              | 99               | 95              |
| MB 410-158503/10  | Method Blank           | 95   | 98              | 92               | 98              |
| MB 410-158553/7   | Method Blank           | 108  | 87              | 100              | 94              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50151-1

Project/Site: PBF Logistics

TOL = Toluene-d8 (Surr)

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID       | DCA<br>(80-120) | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
|-------------------|------------------------|-----------------|-----------------|------------------|-----------------|
| 410-50151-32      | Trip Blank             | 98              | 101             | 107              | 97              |
| LCS 410-158775/4  | Lab Control Sample     | 100             | 102             | 105              | 98              |
| LCSD 410-158775/5 | Lab Control Sample Dup | 100             | 101             | 104              | 97              |
| MB 410-158775/6   | Method Blank           | 97              | 101             | 105              | 97              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID    | Client Sample ID | FBP<br>(39-100) | NBZ<br>(32-97) | TPHd14<br>(45-108) |
|------------------|------------------|-----------------|----------------|--------------------|
| 410-50151-1      | 4847-P6 (3)      | 16 S1-          | 35             | 5 S1-              |
| 410-50151-2      | Pipe 15 (2)      | 84              | 71             | 84                 |
| 410-50151-3      | 4847-P2 (3)      | 90              | 76             | 87                 |
| 410-50151-4      | 4847-P1 (3)      | 89              | 76             | 89                 |
| 410-50151-5      | 4847-P3 (3)      | 89              | 77             | 89                 |
| 410-50151-6      | 1043-P3 (3)      | 83              | 64             | 76                 |
| 410-50151-7      | DUP-2            | 4 S1-           | 1 S1-          | 24 S1-             |
| 410-50151-8      | Pipe 61 (2)      | 83              | 74             | 85                 |
| 410-50151-9      | 1043-P2 (3)      | 82              | 69             | 82                 |
| 410-50151-10     | Pipe 11 (2)      | 85              | 73             | 96                 |
| 410-50151-10 MS  | Pipe 11 (2)      | 72              | 62             | 94                 |
| 410-50151-10 MSD | Pipe 11 (2)      | 79              | 71             | 94                 |
| 410-50151-11     | 1248-P5 (3)      | 71              | 63             | 85                 |
| 410-50151-12     | Pipe 14 (2)      | 83              | 74             | 95                 |
| 410-50151-13     | 1248-P4 (3)      | 87              | 72             | 100                |
| 410-50151-14     | 1248-P3 (3)      | 89              | 77             | 103                |
| 410-50151-15     | 1248-P2 (3)      | 80              | 67             | 103                |
| 410-50151-16     | DUP-1            | 86              | 71             | 101                |
| 410-50151-17     | Pipe 1 (2)       | 88              | 77             | 102                |
| 410-50151-18     | 1248-P1 (3)      | 86              | 75             | 101                |
| 410-50151-19     | Pipe 2 (2)       | 81              | 70             | 93                 |
| 410-50151-20     | Pipe 3 (2)       | 70              | 64             | 89                 |
| 410-50151-21     | Pipe 5 (2)       | 84              | 74             | 97                 |
| 410-50151-22     | Pipe 7 (2)       | 72              | 80             | 86                 |
| 410-50151-23     | Pipe 8 (2)       | 54              | 61             | 75                 |
| 410-50151-23 MS  | Pipe 8 (2)       | 45              | 51             | 56                 |
| 410-50151-23 MSD | Pipe 8 (2)       | 81              | 72             | 79                 |
| 410-50151-24     | Pipe 6 (2)       | 86              | 73             | 81                 |
| 410-50151-25     | Pipe 10 (2)      | 69              | 55             | 78                 |
| 410-50151-26     | Pipe 9 (2)       | 63              | 56             | 73                 |
| 410-50151-27     | Pipe 12 (2)      | 74              | 70             | 80                 |
| 410-50151-28     | Pipe 13 (2)      | 83              | 83             | 84                 |

## Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50151-1

Project/Site: PBF Logistics

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

|                    |                    | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
| Lab Sample ID      | Client Sample ID   | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-50151-29       | Pipe 17 (2)        | 89   | 73             | 87                 |
| 410-50151-30       | Pipe 16 (2)        | 87   | 71             | 88                 |
| 410-50151-31       | Pipe 60 (2)        | 76   | 64             | 80                 |
| LCS 410-158484/2-A | Lab Control Sample | 76   | 67             | 88                 |
| LCS 410-158764/2-A | Lab Control Sample | 98   | 79             | 92                 |
| LCS 410-159833/2-A | Lab Control Sample | 93   | 74             | 92                 |
| LCS 410-160040/2-A | Lab Control Sample | 77   | 68             | 88                 |
| MB 410-158484/1-A  | Method Blank       | 83   | 75             | 97                 |
| MB 410-158764/1-A  | Method Blank       | 91   | 79             | 94                 |
| MB 410-159833/1-A  | Method Blank       | 87   | 69             | 90                 |
| MB 410-160040/1-A  | Method Blank       | 81   | 72             | 102                |

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-158050/7

Matrix: Solid

Analysis Batch: 158050

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/09/21 11:04 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/09/21 11:04 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107          |              | 54 - 135 |          | 08/09/21 11:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88           |              | 50 - 131 |          | 08/09/21 11:04 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/09/21 11:04 | 1       |
| Toluene-d8 (Surr)            | 92           |              | 52 - 141 |          | 08/09/21 11:04 | 1       |

Lab Sample ID: LCS 410-158050/4

Matrix: Solid

Analysis Batch: 158050

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 17.2       |               | ug/Kg |   | 86   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 16.4       |               | ug/Kg |   | 82   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.8       |               | ug/Kg |   | 84   | 73 - 120     |
| Toluene                     | 20.0        | 16.2       |               | ug/Kg |   | 81   | 80 - 120     |
| Xylenes, Total              | 60.0        | 48.0       |               | ug/Kg |   | 80   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 15.3       |               | ug/Kg |   | 77   | 72 - 120     |
| Benzene                     | 20.0        | 18.1       |               | ug/Kg |   | 90   | 80 - 120     |
| Naphthalene                 | 20.0        | 14.6       |               | ug/Kg |   | 73   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.9       |               | ug/Kg |   | 84   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 15.5       |               | ug/Kg |   | 78   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 16.6       |               | ug/Kg |   | 83   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 106           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 96            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-158050/5

Matrix: Solid

Analysis Batch: 158050

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 17.4        |                | ug/Kg |   | 87   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane | 20.0        | 16.4        |                | ug/Kg |   | 82   | 71 - 128     | 0   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-158050/5

Matrix: Solid

Analysis Batch: 158050

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 16.8        |                | ug/Kg |   | 84   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 16.5        |                | ug/Kg |   | 83   | 80 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 48.7        |                | ug/Kg |   | 81   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 16.2        |                | ug/Kg |   | 81   | 72 - 120     | 5   | 30        |
| Benzene                     | 20.0        | 18.6        |                | ug/Kg |   | 93   | 80 - 120     | 3   | 30        |
| Naphthalene                 | 20.0        | 15.4        |                | ug/Kg |   | 77   | 48 - 130     | 6   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.8        |                | ug/Kg |   | 84   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 20.0        | 15.7        |                | ug/Kg |   | 79   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 20.0        | 17.6        |                | ug/Kg |   | 88   | 76 - 120     | 6   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 108            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 93             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 98             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-158385/7

Matrix: Solid

Analysis Batch: 158385

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/09/21 23:20 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/09/21 23:20 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102          |              | 54 - 135 |          | 08/09/21 23:20 | 50      |
| 4-Bromofluorobenzene (Surr)  | 88           |              | 50 - 131 |          | 08/09/21 23:20 | 50      |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |          | 08/09/21 23:20 | 50      |
| Toluene-d8 (Surr)            | 95           |              | 52 - 141 |          | 08/09/21 23:20 | 50      |

Lab Sample ID: LCS 410-158385/4

Matrix: Solid

Analysis Batch: 158385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 1000        | 928        |               | ug/Kg |   | 93   | 78 - 120     |
| 1,2-Dichloroethane     | 1000        | 920        |               | ug/Kg |   | 92   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 865        |               | ug/Kg |   | 86   | 73 - 120     |
| Toluene                | 1000        | 950        |               | ug/Kg |   | 95   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-158385/4

Matrix: Solid

Analysis Batch: 158385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 3000        | 2890       |               | ug/Kg |   | 96   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 936        |               | ug/Kg |   | 94   | 72 - 120     |
| Benzene                     | 1000        | 985        |               | ug/Kg |   | 99   | 80 - 120     |
| Naphthalene                 | 1000        | 897        |               | ug/Kg |   | 90   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 858        |               | ug/Kg |   | 86   | 73 - 120     |
| Isopropylbenzene            | 1000        | 947        |               | ug/Kg |   | 95   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 988        |               | ug/Kg |   | 99   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 89            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 92            |               | 52 - 141 |

Lab Sample ID: LCSD 410-158385/5

Matrix: Solid

Analysis Batch: 158385

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 912         |                | ug/Kg |   | 91   | 78 - 120     | 2   | 30        |
| 1,2-Dichloroethane          | 1000        | 920         |                | ug/Kg |   | 92   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 844         |                | ug/Kg |   | 84   | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 937         |                | ug/Kg |   | 94   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2840        |                | ug/Kg |   | 95   | 75 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 1000        | 926         |                | ug/Kg |   | 93   | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 970         |                | ug/Kg |   | 97   | 80 - 120     | 2   | 30        |
| Naphthalene                 | 1000        | 875         |                | ug/Kg |   | 88   | 48 - 130     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 850         |                | ug/Kg |   | 85   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 1000        | 930         |                | ug/Kg |   | 93   | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane           | 1000        | 971         |                | ug/Kg |   | 97   | 76 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 88             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 98             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 91             |                | 52 - 141 |

Lab Sample ID: MB 410-158503/10

Matrix: Solid

Analysis Batch: 158503

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/10/21 12:11 | 50      |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-158503/10

Matrix: Solid

Analysis Batch: 158503

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 250 | 25  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| Naphthalene            | ND        |              | 250 | 100 | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| Isopropylbenzene       | ND        |              | 250 | 20  | ug/Kg |   |          | 08/10/21 12:11 | 50      |
| 1,2-Dibromoethane      | ND        |              | 250 | 20  | ug/Kg |   |          | 08/10/21 12:11 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95           |              | 54 - 135 |          | 08/10/21 12:11 | 50      |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 08/10/21 12:11 | 50      |
| Dibromofluoromethane (Surr)  | 92           |              | 50 - 141 |          | 08/10/21 12:11 | 50      |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/10/21 12:11 | 50      |

Lab Sample ID: LCS 410-158503/5

Matrix: Solid

Analysis Batch: 158503

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 989        |               | ug/Kg |   | 99   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 927        |               | ug/Kg |   | 93   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 1020       |               | ug/Kg |   | 102  | 73 - 120     |
| Toluene                     | 1000        | 986        |               | ug/Kg |   | 99   | 80 - 120     |
| Xylenes, Total              | 3000        | 2930       |               | ug/Kg |   | 98   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 945        |               | ug/Kg |   | 95   | 72 - 120     |
| Benzene                     | 1000        | 919        |               | ug/Kg |   | 92   | 80 - 120     |
| Naphthalene                 | 1000        | 752        |               | ug/Kg |   | 75   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 1010       |               | ug/Kg |   | 101  | 73 - 120     |
| Isopropylbenzene            | 1000        | 997        |               | ug/Kg |   | 100  | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 971        |               | ug/Kg |   | 97   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 90            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 93            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-158503/6

Matrix: Solid

Analysis Batch: 158503

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 998         |                | ug/Kg |   | 100  | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 911         |                | ug/Kg |   | 91   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 1020        |                | ug/Kg |   | 102  | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 992         |                | ug/Kg |   | 99   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2950        |                | ug/Kg |   | 98   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 928         |                | ug/Kg |   | 93   | 72 - 120     | 2   | 30        |
| Benzene                     | 1000        | 925         |                | ug/Kg |   | 93   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 836         |                | ug/Kg |   | 84   | 48 - 130     | 11  | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-158503/6

Matrix: Solid

Analysis Batch: 158503

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene | 1000        | 1020        |                | ug/Kg |   | 102  | 73 - 120     | 1   | 30        |
| Isopropylbenzene       | 1000        | 1020        |                | ug/Kg |   | 102  | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane      | 1000        | 969         |                | ug/Kg |   | 97   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 89             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 92             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

Lab Sample ID: MB 410-158553/7

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/10/21 11:44 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108          |              | 54 - 135 |          | 08/10/21 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87           |              | 50 - 131 |          | 08/10/21 11:44 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/10/21 11:44 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 08/10/21 11:44 | 1       |

Lab Sample ID: LCS 410-158553/4

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.9       |               | ug/Kg |   | 95   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 16.5       |               | ug/Kg |   | 83   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.9       |               | ug/Kg |   | 89   | 73 - 120     |
| Toluene                     | 20.0        | 17.4       |               | ug/Kg |   | 87   | 80 - 120     |
| Xylenes, Total              | 60.0        | 51.9       |               | ug/Kg |   | 87   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 16.8       |               | ug/Kg |   | 84   | 72 - 120     |
| Benzene                     | 20.0        | 19.8       |               | ug/Kg |   | 99   | 80 - 120     |
| Naphthalene                 | 20.0        | 15.4       |               | ug/Kg |   | 77   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.8       |               | ug/Kg |   | 89   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 16.9       |               | ug/Kg |   | 85   | 77 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-158553/4

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,2-Dibromoethane | 20.0        | 17.6       |               | ug/Kg |   | 88   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 108           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 95            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-158553/5

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 18.8        |                | ug/Kg |   | 94   | 78 - 120     | 0   | 30        |
| 1,2-Dichloroethane          | 20.0        | 16.5        |                | ug/Kg |   | 82   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 17.8        |                | ug/Kg |   | 89   | 80 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 51.9        |                | ug/Kg |   | 87   | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 15.8        |                | ug/Kg |   | 79   | 72 - 120     | 6   | 30        |
| Benzene                     | 20.0        | 19.7        |                | ug/Kg |   | 99   | 80 - 120     | 0   | 30        |
| Naphthalene                 | 20.0        | 14.0        |                | ug/Kg |   | 70   | 48 - 130     | 9   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.9        |                | ug/Kg |   | 90   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 20.0        | 16.9        |                | ug/Kg |   | 84   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 20.0        | 17.0        |                | ug/Kg |   | 85   | 76 - 120     | 4   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 95             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-158775/6

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/10/21 20:07 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/10/21 20:07 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:07 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-158775/6

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Isopropylbenzene | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97              |                 | 80 - 120 |          | 08/10/21 20:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 101             |                 | 80 - 120 |          | 08/10/21 20:07 | 1       |
| Dibromofluoromethane (Surr)  | 105             |                 | 80 - 120 |          | 08/10/21 20:07 | 1       |
| Toluene-d8 (Surr)            | 97              |                 | 80 - 120 |          | 08/10/21 20:07 | 1       |

Lab Sample ID: LCS 410-158775/4

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| 1,2-Dibromoethane           | 20.0           | 18.6          |                  | ug/L |   | 93   | 77 - 120        |
| Ethylbenzene                | 20.0           | 18.8          |                  | ug/L |   | 94   | 80 - 120        |
| 1,2-Dichloroethane          | 20.0           | 17.9          |                  | ug/L |   | 89   | 73 - 124        |
| 1,3,5-Trimethylbenzene      | 20.0           | 18.1          |                  | ug/L |   | 91   | 75 - 120        |
| Toluene                     | 20.0           | 18.4          |                  | ug/L |   | 92   | 80 - 120        |
| Xylenes, Total              | 60.0           | 55.4          |                  | ug/L |   | 92   | 80 - 120        |
| Methyl tertiary butyl ether | 20.0           | 18.8          |                  | ug/L |   | 94   | 69 - 122        |
| Benzene                     | 20.0           | 18.9          |                  | ug/L |   | 95   | 80 - 120        |
| Naphthalene                 | 20.0           | 18.0          |                  | ug/L |   | 90   | 53 - 124        |
| 1,2,4-Trimethylbenzene      | 20.0           | 17.9          |                  | ug/L |   | 90   | 75 - 120        |
| Isopropylbenzene            | 20.0           | 18.5          |                  | ug/L |   | 92   | 80 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100              |                  | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 102              |                  | 80 - 120 |
| Dibromofluoromethane (Surr)  | 105              |                  | 80 - 120 |
| Toluene-d8 (Surr)            | 98               |                  | 80 - 120 |

Lab Sample ID: LCSD 410-158775/5

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|-----------------------------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| 1,2-Dibromoethane           | 20.0           | 19.7           |                   | ug/L |   | 98   | 77 - 120        | 5   | 30           |
| Ethylbenzene                | 20.0           | 20.4           |                   | ug/L |   | 102  | 80 - 120        | 8   | 30           |
| 1,2-Dichloroethane          | 20.0           | 19.4           |                   | ug/L |   | 97   | 73 - 124        | 8   | 30           |
| 1,3,5-Trimethylbenzene      | 20.0           | 19.6           |                   | ug/L |   | 98   | 75 - 120        | 8   | 30           |
| Toluene                     | 20.0           | 19.9           |                   | ug/L |   | 99   | 80 - 120        | 7   | 30           |
| Xylenes, Total              | 60.0           | 59.7           |                   | ug/L |   | 100  | 80 - 120        | 7   | 30           |
| Methyl tertiary butyl ether | 20.0           | 20.6           |                   | ug/L |   | 103  | 69 - 122        | 9   | 30           |
| Benzene                     | 20.0           | 20.8           |                   | ug/L |   | 104  | 80 - 120        | 10  | 30           |
| Naphthalene                 | 20.0           | 19.8           |                   | ug/L |   | 99   | 53 - 124        | 9   | 30           |
| 1,2,4-Trimethylbenzene      | 20.0           | 19.6           |                   | ug/L |   | 98   | 75 - 120        | 9   | 30           |
| Isopropylbenzene            | 20.0           | 19.8           |                   | ug/L |   | 99   | 80 - 120        | 7   | 30           |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-158775/5

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 80 - 120 |
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 120 |
| Toluene-d8 (Surr)            | 97        |           | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-158484/1-A

Matrix: Solid

Analysis Batch: 159419

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158484

| Analyte                 | MB        | MB        |          |     |       |   |                |                |     |     |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|-----|-----|
|                         | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil | Fac |
| Anthracene              | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Benzo[a]anthracene      | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Benzo[a]pyrene          | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Benzo[b]fluoranthene    | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Benzo[g,h,i]perylene    | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Chrysene                | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Fluorene                | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Phenanthrene            | ND        |           | 17       | 4.0 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Pyrene                  | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Surrogate               | MB        | MB        |          |     |       |   | Prepared       | Analyzed       | Dil | Fac |
|                         | %Recovery | Qualifier | Limits   |     |       |   |                |                |     |     |
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 |     |       |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  |     |       |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |
| p-Terphenyl-d14 (Surr)  | 97        |           | 45 - 108 |     |       |   | 08/10/21 09:43 | 08/12/21 00:33 | 1   |     |

Lab Sample ID: LCS 410-158484/2-A

Matrix: Solid

Analysis Batch: 159419

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158484

| Analyte                 | Spike     | LCS       | LCS       |       |   |      |          |  |  |  |
|-------------------------|-----------|-----------|-----------|-------|---|------|----------|--|--|--|
|                         | Added     | Result    | Qualifier | Unit  | D | %Rec | Limits   |  |  |  |
| Anthracene              | 1670      | 1350      |           | ug/Kg |   | 81   | 75 - 120 |  |  |  |
| Benzo[a]anthracene      | 1670      | 1370      |           | ug/Kg |   | 82   | 73 - 120 |  |  |  |
| Benzo[a]pyrene          | 1670      | 1530      |           | ug/Kg |   | 92   | 80 - 123 |  |  |  |
| Benzo[b]fluoranthene    | 1670      | 1460      |           | ug/Kg |   | 87   | 63 - 120 |  |  |  |
| Benzo[g,h,i]perylene    | 1670      | 1780      |           | ug/Kg |   | 107  | 77 - 120 |  |  |  |
| Chrysene                | 1670      | 1430      |           | ug/Kg |   | 86   | 66 - 120 |  |  |  |
| Fluorene                | 1670      | 1360      |           | ug/Kg |   | 81   | 68 - 120 |  |  |  |
| Phenanthrene            | 1670      | 1310      |           | ug/Kg |   | 79   | 74 - 120 |  |  |  |
| Pyrene                  | 1670      | 1320      |           | ug/Kg |   | 79   | 70 - 120 |  |  |  |
| Surrogate               | LCS       | LCS       |           |       |   |      |          |  |  |  |
|                         | %Recovery | Qualifier | Limits    |       |   |      |          |  |  |  |
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100  |       |   |      |          |  |  |  |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97   |       |   |      |          |  |  |  |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108  |       |   |      |          |  |  |  |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-50151-23 MS

Matrix: Solid

Analysis Batch: 159422

Client Sample ID: Pipe 8 (2)

Prep Type: Total/NA

Prep Batch: 158484

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Anthracene           | 450           | FL F2            | 1900        | 1220      | FL           | ug/Kg | ✱ | 40   | 75 - 120     |
| Benzo[a]anthracene   | 9.9           | J FL F2          | 1900        | 1150      | FL           | ug/Kg | ✱ | 60   | 73 - 120     |
| Benzo[a]pyrene       | 4.2           | J FL F2          | 1900        | 1160      | FL           | ug/Kg | ✱ | 61   | 80 - 123     |
| Benzo[b]fluoranthene | 4.1           | J FL F2          | 1900        | 1050      | FL           | ug/Kg | ✱ | 55   | 63 - 120     |
| Benzo[g,h,i]perylene | ND            | FL F2            | 1900        | 1210      | FL           | ug/Kg | ✱ | 64   | 77 - 120     |
| Chrysene             | 16            | J FL F2          | 1900        | 1080      | FL           | ug/Kg | ✱ | 56   | 66 - 120     |
| Fluorene             | 1500          | FL F2            | 1900        | 1780      | FL           | ug/Kg | ✱ | 13   | 68 - 120     |
| Phenanthrene         | 3400          | FL F2            | 1900        | 2660      | FL           | ug/Kg | ✱ | -41  | 74 - 120     |
| Pyrene               | 310           | FL F2            | 1900        | 1190      | FL           | ug/Kg | ✱ | 46   | 70 - 120     |

| Surrogate               | MS %Recovery | MS Qualifier | Limits   |
|-------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr) | 45           |              | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 51           |              | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 56           |              | 45 - 108 |

Lab Sample ID: 410-50151-23 MSD

Matrix: Solid

Analysis Batch: 159422

Client Sample ID: Pipe 8 (2)

Prep Type: Total/NA

Prep Batch: 158484

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Anthracene           | 450           | FL F2            | 1900        | 1960       | F2            | ug/Kg | ✱ | 79   | 75 - 120     | 47  | 30        |
| Benzo[a]anthracene   | 9.9           | J FL F2          | 1900        | 1660       | F2            | ug/Kg | ✱ | 87   | 73 - 120     | 36  | 30        |
| Benzo[a]pyrene       | 4.2           | J FL F2          | 1900        | 1660       | F2            | ug/Kg | ✱ | 87   | 80 - 123     | 36  | 30        |
| Benzo[b]fluoranthene | 4.1           | J FL F2          | 1900        | 1450       | F2            | ug/Kg | ✱ | 76   | 63 - 120     | 33  | 30        |
| Benzo[g,h,i]perylene | ND            | FL F2            | 1900        | 1710       | F2            | ug/Kg | ✱ | 90   | 77 - 120     | 34  | 30        |
| Chrysene             | 16            | J FL F2          | 1900        | 1580       | F2            | ug/Kg | ✱ | 82   | 66 - 120     | 37  | 30        |
| Fluorene             | 1500          | FL F2            | 1900        | 3430       | F2            | ug/Kg | ✱ | 100  | 68 - 120     | 64  | 30        |
| Phenanthrene         | 3400          | FL F2            | 1900        | 4710       | E FL F2       | ug/Kg | ✱ | 67   | 74 - 120     | 56  | 30        |
| Pyrene               | 310           | FL F2            | 1900        | 1790       | F2            | ug/Kg | ✱ | 78   | 70 - 120     | 41  | 30        |

| Surrogate               | MSD %Recovery | MSD Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 81            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 72            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 79            |               | 45 - 108 |

Lab Sample ID: MB 410-158764/1-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158764

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-158764/1-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158764

| Analyte                 | MB Result | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND        |              | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Surrogate               | %Recovery | Qualifier    | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 91        |              | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Nitrobenzene-d5 (Surr)  | 79        |              | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| p-Terphenyl-d14 (Surr)  | 94        |              | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |

Lab Sample ID: LCS 410-158764/2-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158764

| Analyte                 | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene              | 1670        | 1650       |               | ug/Kg |   | 99   | 75 - 120     |
| Benzo[a]anthracene      | 1670        | 1670       |               | ug/Kg |   | 100  | 73 - 120     |
| Benzo[a]pyrene          | 1670        | 1720       |               | ug/Kg |   | 103  | 80 - 123     |
| Benzo[b]fluoranthene    | 1670        | 1510       |               | ug/Kg |   | 91   | 63 - 120     |
| Benzo[g,h,i]perylene    | 1670        | 1710       |               | ug/Kg |   | 103  | 77 - 120     |
| Chrysene                | 1670        | 1630       |               | ug/Kg |   | 98   | 66 - 120     |
| Fluorene                | 1670        | 1800       |               | ug/Kg |   | 108  | 68 - 120     |
| Phenanthrene            | 1670        | 1610       |               | ug/Kg |   | 97   | 74 - 120     |
| Pyrene                  | 1670        | 1640       |               | ug/Kg |   | 98   | 70 - 120     |
| Surrogate               | %Recovery   | Qualifier  | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 98          |            | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 79          |            | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 92          |            | 45 - 108      |       |   |      |              |

Lab Sample ID: MB 410-159833/1-A

Matrix: Solid

Analysis Batch: 160160

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159833

| Analyte                 | MB Result | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[a]anthracene      | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[a]pyrene          | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[b]fluoranthene    | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[g,h,i]perylene    | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Chrysene                | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Fluorene                | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Phenanthrene            | ND        |              | 17       | 4.0 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Pyrene                  | ND        |              | 17       | 3.3 | ug/Kg |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Surrogate               | %Recovery | Qualifier    | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 87        |              | 39 - 100 |     |       |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |              | 32 - 97  |     |       |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| p-Terphenyl-d14 (Surr)  | 90        |              | 45 - 108 |     |       |   | 08/12/21 18:24 | 08/13/21 11:50 | 1       |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-159833/2-A

Matrix: Solid

Analysis Batch: 160160

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159833

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1560       |               | ug/Kg |   | 94   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1730       |               | ug/Kg |   | 104  | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1610       |               | ug/Kg |   | 97   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1370       |               | ug/Kg |   | 82   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1760       |               | ug/Kg |   | 106  | 77 - 120     |
| Chrysene             | 1670        | 1750       |               | ug/Kg |   | 105  | 66 - 120     |
| Fluorene             | 1670        | 1710       |               | ug/Kg |   | 102  | 68 - 120     |
| Phenanthrene         | 1670        | 1530       |               | ug/Kg |   | 92   | 74 - 120     |
| Pyrene               | 1670        | 1560       |               | ug/Kg |   | 94   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 93            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 74            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 92            |               | 45 - 108 |

Lab Sample ID: MB 410-160040/1-A

Matrix: Solid

Analysis Batch: 160469

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160040

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:46 | 08/13/21 23:41 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 81           |              | 39 - 100 | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| Nitrobenzene-d5 (Surr)  | 72           |              | 32 - 97  | 08/13/21 09:46 | 08/13/21 23:41 | 1       |
| p-Terphenyl-d14 (Surr)  | 102          |              | 45 - 108 | 08/13/21 09:46 | 08/13/21 23:41 | 1       |

Lab Sample ID: LCS 410-160040/2-A

Matrix: Solid

Analysis Batch: 160469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160040

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1370       |               | ug/Kg |   | 82   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1430       |               | ug/Kg |   | 86   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1500       |               | ug/Kg |   | 90   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1320       |               | ug/Kg |   | 79   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1680       |               | ug/Kg |   | 101  | 77 - 120     |
| Chrysene             | 1670        | 1480       |               | ug/Kg |   | 89   | 66 - 120     |
| Fluorene             | 1670        | 1400       |               | ug/Kg |   | 84   | 68 - 120     |
| Phenanthrene         | 1670        | 1330       |               | ug/Kg |   | 80   | 74 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-160040/2-A

Matrix: Solid

Analysis Batch: 160469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160040

| Analyte                 | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Pyrene                  | 1670          | 1330          |               | ug/Kg |   | 80   | 70 - 120     |
| Surrogate               | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 77            |               | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 68            |               | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 88            |               | 45 - 108      |       |   |      |              |

Lab Sample ID: 410-50151-10 MS

Matrix: Solid

Analysis Batch: 160469

Client Sample ID: Pipe 11 (2)

Prep Type: Total/NA

Prep Batch: 160040

|                      | Sample | Sample    | Spike | MS     | MS        |       |   |      | %Rec.    |  |  |
|----------------------|--------|-----------|-------|--------|-----------|-------|---|------|----------|--|--|
| Analyte              | Result | Qualifier | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |  |
| Anthracene           | ND     |           | 1870  | 1550   |           | ug/Kg | ☼ | 83   | 75 - 120 |  |  |
| Benzo[a]anthracene   | ND     |           | 1870  | 1710   |           | ug/Kg | ☼ | 91   | 73 - 120 |  |  |
| Benzo[a]pyrene       | ND     |           | 1870  | 1710   |           | ug/Kg | ☼ | 91   | 80 - 123 |  |  |
| Benzo[b]fluoranthene | ND     |           | 1870  | 1520   |           | ug/Kg | ☼ | 81   | 63 - 120 |  |  |
| Benzo[g,h,i]perylene | ND     |           | 1870  | 1930   |           | ug/Kg | ☼ | 103  | 77 - 120 |  |  |
| Chrysene             | ND     |           | 1870  | 1790   |           | ug/Kg | ☼ | 96   | 66 - 120 |  |  |
| Fluorene             | ND     |           | 1870  | 1490   |           | ug/Kg | ☼ | 80   | 68 - 120 |  |  |
| Phenanthrene         | ND     |           | 1870  | 1500   |           | ug/Kg | ☼ | 80   | 74 - 120 |  |  |
| Pyrene               | ND     |           | 1870  | 1600   |           | ug/Kg | ☼ | 86   | 70 - 120 |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        |           |       |        |           |       |   |      |          |  |  |
|                      |        | </        |       |        |           |       |   |      |          |  |  |

Lab Sample ID: 410-50151-10 MSD

Matrix: Solid

Analysis Batch: 160469

Client Sample ID: Pipe 11 (2)

Prep Type: Total/NA

Prep Batch: 160040

| Analyte                 | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Anthracene              | ND            |                  | 1870        | 1590       |               | ug/Kg | ✖ | 85   | 75 - 120     | 2   | 30    |
| Benzo[a]anthracene      | ND            |                  | 1870        | 1640       |               | ug/Kg | ✖ | 87   | 73 - 120     | 4   | 30    |
| Benzo[a]pyrene          | ND            |                  | 1870        | 1730       |               | ug/Kg | ✖ | 93   | 80 - 123     | 1   | 30    |
| Benzo[b]fluoranthene    | ND            |                  | 1870        | 1510       |               | ug/Kg | ✖ | 81   | 63 - 120     | 1   | 30    |
| Benzo[g,h,i]perylene    | ND            |                  | 1870        | 1870       |               | ug/Kg | ✖ | 100  | 77 - 120     | 3   | 30    |
| Chrysene                | ND            |                  | 1870        | 1660       |               | ug/Kg | ✖ | 89   | 66 - 120     | 7   | 30    |
| Fluorene                | ND            |                  | 1870        | 1600       |               | ug/Kg | ✖ | 85   | 68 - 120     | 7   | 30    |
| Phenanthrene            | ND            |                  | 1870        | 1550       |               | ug/Kg | ✖ | 83   | 74 - 120     | 3   | 30    |
| Pyrene                  | ND            |                  | 1870        | 1580       |               | ug/Kg | ✖ | 84   | 70 - 120     | 1   | 30    |
| Surrogate               | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |       |
| 2-Fluorobiphenyl (Surr) | 79            |                  | 39 - 100    |            |               |       |   |      |              |     |       |
| Nitrobenzene-d5 (Surr)  | 71            |                  | 32 - 97     |            |               |       |   |      |              |     |       |
| p-Terphenyl-d14 (Surr)  | 94            |                  | 45 - 108    |            |               |       |   |      |              |     |       |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-157480/1-A  
Matrix: Solid  
Analysis Batch: 158685

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 157480

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND           |                 | 1.5 | 0.60 | mg/Kg |   | 08/06/21 10:20 | 08/10/21 10:37 | 1       |

Lab Sample ID: LCS 410-157480/2-A  
Matrix: Solid  
Analysis Batch: 158685

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 157480

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Lead    | 5.00           | 5.25          |                  | mg/Kg |   | 105  | 80 - 120        |

Lab Sample ID: 410-50151-2 MS  
Matrix: Solid  
Analysis Batch: 158685

Client Sample ID: Pipe 15 (2)  
Prep Type: Total/NA  
Prep Batch: 157480

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Lead    | 11               | FL F2               | 4.68           | 12.8         | FL              | mg/Kg | ✱ | 39   | 75 - 125        |

Lab Sample ID: 410-50151-2 MSD  
Matrix: Solid  
Analysis Batch: 158685

Client Sample ID: Pipe 15 (2)  
Prep Type: Total/NA  
Prep Batch: 157480

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Lead    | 11               | FL F2               | 5.27           | 9.55          | FL F2            | mg/Kg | ✱ | -27  | 75 - 125        | 29  | 20           |

Lab Sample ID: 410-50151-2 DU  
Matrix: Solid  
Analysis Batch: 158685

Client Sample ID: Pipe 15 (2)  
Prep Type: Total/NA  
Prep Batch: 157480

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit  | D | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--------------|-----------------|-------|---|-----|--------------|
| Lead    | 11               | FL F2               | 6.88         | F3              | mg/Kg | ✱ | 46  | 20           |

Lab Sample ID: MB 410-157515/1-A  
Matrix: Solid  
Analysis Batch: 158735

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 157515

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND           |                 | 1.5 | 0.60 | mg/Kg |   | 08/06/21 11:08 | 08/10/21 12:37 | 1       |

Lab Sample ID: LCS 410-157515/2-A  
Matrix: Solid  
Analysis Batch: 158735

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 157515

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Lead    | 5.00           | 4.57          |                  | mg/Kg |   | 91   | 80 - 120        |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### GC/MS VOA

#### Prep Batch: 157578

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50151-1   | 4847-P6 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-2   | Pipe 15 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-3   | 4847-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-4   | 4847-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-5   | 4847-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-6   | 1043-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-7   | DUP-2            | Total/NA  | Solid  | 5035   |            |
| 410-50151-8   | Pipe 61 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-9   | 1043-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-10  | Pipe 11 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-12  | Pipe 14 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-13  | 1248-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-14  | 1248-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-15  | 1248-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-16  | DUP-1            | Total/NA  | Solid  | 5035   |            |
| 410-50151-17  | Pipe 1 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-18  | 1248-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-19  | Pipe 2 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-20  | Pipe 3 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-24  | Pipe 6 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-30  | Pipe 16 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-31  | Pipe 60 (2)      | Total/NA  | Solid  | 5035   |            |

#### Prep Batch: 157579

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-50151-11      | 1248-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-21      | Pipe 5 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-22 - DL | Pipe 7 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-22      | Pipe 7 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-23 - DL | Pipe 8 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-23      | Pipe 8 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-25      | Pipe 10 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-26      | Pipe 9 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50151-27      | Pipe 12 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-28      | Pipe 13 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50151-29      | Pipe 17 (2)      | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 158050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50151-1   | 4847-P6 (3)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-2   | Pipe 15 (2)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-3   | 4847-P2 (3)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-4   | 4847-P1 (3)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-5   | 4847-P3 (3)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-6   | 1043-P3 (3)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-7   | DUP-2            | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-8   | Pipe 61 (2)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-9   | 1043-P2 (3)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-10  | Pipe 11 (2)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-12  | Pipe 14 (2)      | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-13  | 1248-P4 (3)      | Total/NA  | Solid  | 8260C  | 157578     |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## GC/MS VOA (Continued)

### Analysis Batch: 158050 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50151-14      | 1248-P3 (3)            | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-15      | 1248-P2 (3)            | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-16      | DUP-1                  | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-17      | Pipe 1 (2)             | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-18      | 1248-P1 (3)            | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-19      | Pipe 2 (2)             | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-20      | Pipe 3 (2)             | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-24      | Pipe 6 (2)             | Total/NA  | Solid  | 8260C  | 157578     |
| MB 410-158050/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-158050/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-158050/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 158385

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50151-11      | 1248-P5 (3)            | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-21      | Pipe 5 (2)             | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-22      | Pipe 7 (2)             | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-23      | Pipe 8 (2)             | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-25      | Pipe 10 (2)            | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-26      | Pipe 9 (2)             | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-27      | Pipe 12 (2)            | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-28      | Pipe 13 (2)            | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-29      | Pipe 17 (2)            | Total/NA  | Solid  | 8260C  | 157579     |
| MB 410-158385/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-158385/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-158385/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 158503

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50151-22 - DL | Pipe 7 (2)             | Total/NA  | Solid  | 8260C  | 157579     |
| 410-50151-23 - DL | Pipe 8 (2)             | Total/NA  | Solid  | 8260C  | 157579     |
| MB 410-158503/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-158503/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-158503/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 158553

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50151-30      | Pipe 16 (2)            | Total/NA  | Solid  | 8260C  | 157578     |
| 410-50151-31      | Pipe 60 (2)            | Total/NA  | Solid  | 8260C  | 157578     |
| MB 410-158553/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-158553/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-158553/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 158775

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-50151-32      | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-158775/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-158775/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-158775/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### GC/MS Semi VOA

#### Prep Batch: 158484

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-9        | 1043-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-23       | Pipe 8 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-24       | Pipe 6 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-25       | Pipe 10 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-26       | Pipe 9 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-27       | Pipe 12 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-28       | Pipe 13 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-29       | Pipe 17 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-30       | Pipe 16 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-31       | Pipe 60 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-158484/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158484/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-50151-23 MS    | Pipe 8 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-23 MSD   | Pipe 8 (2)         | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 158764

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-1        | 4847-P6 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-2        | Pipe 15 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-3        | 4847-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-4        | 4847-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-5        | 4847-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-7        | DUP-2              | Total/NA  | Solid  | 3546   |            |
| 410-50151-8        | Pipe 61 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-22       | Pipe 7 (2)         | Total/NA  | Solid  | 3546   |            |
| MB 410-158764/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158764/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 158947

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-1        | 4847-P6 (3)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-2        | Pipe 15 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-3        | 4847-P2 (3)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-4        | 4847-P1 (3)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-5        | 4847-P3 (3)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-7        | DUP-2              | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-8        | Pipe 61 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50151-22       | Pipe 7 (2)         | Total/NA  | Solid  | 8270D  | 158764     |
| MB 410-158764/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158764     |
| LCS 410-158764/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158764     |

#### Analysis Batch: 159419

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-158484/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158484     |
| LCS 410-158484/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158484     |

#### Analysis Batch: 159422

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50151-9   | 1043-P2 (3)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-23  | Pipe 8 (2)       | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-24  | Pipe 6 (2)       | Total/NA  | Solid  | 8270D  | 158484     |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### GC/MS Semi VOA (Continued)

#### Analysis Batch: 159422 (Continued)

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50151-25     | Pipe 10 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-26     | Pipe 9 (2)       | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-27     | Pipe 12 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-28     | Pipe 13 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-29     | Pipe 17 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-30     | Pipe 16 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-31     | Pipe 60 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-23 MS  | Pipe 8 (2)       | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50151-23 MSD | Pipe 8 (2)       | Total/NA  | Solid  | 8270D  | 158484     |

#### Prep Batch: 159833

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-6        | 1043-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| MB 410-159833/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-159833/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 160040

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-10       | Pipe 11 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-11       | 1248-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-12       | Pipe 14 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-13       | 1248-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-14       | 1248-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-15       | 1248-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-16       | DUP-1              | Total/NA  | Solid  | 3546   |            |
| 410-50151-17       | Pipe 1 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-18       | 1248-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-19       | Pipe 2 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-20       | Pipe 3 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50151-21       | Pipe 5 (2)         | Total/NA  | Solid  | 3546   |            |
| MB 410-160040/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-160040/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-50151-10 MS    | Pipe 11 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50151-10 MSD   | Pipe 11 (2)        | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 160160

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-6        | 1043-P3 (3)        | Total/NA  | Solid  | 8270D  | 159833     |
| MB 410-159833/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 159833     |
| LCS 410-159833/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 159833     |

#### Analysis Batch: 160469

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50151-10  | Pipe 11 (2)      | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-11  | 1248-P5 (3)      | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-12  | Pipe 14 (2)      | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-13  | 1248-P4 (3)      | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-14  | 1248-P3 (3)      | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-15  | 1248-P2 (3)      | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-16  | DUP-1            | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-17  | Pipe 1 (2)       | Total/NA  | Solid  | 8270D  | 160040     |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### GC/MS Semi VOA (Continued)

#### Analysis Batch: 160469 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-18       | 1248-P1 (3)        | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-19       | Pipe 2 (2)         | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-20       | Pipe 3 (2)         | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-21       | Pipe 5 (2)         | Total/NA  | Solid  | 8270D  | 160040     |
| MB 410-160040/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 160040     |
| LCS 410-160040/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-10 MS    | Pipe 11 (2)        | Total/NA  | Solid  | 8270D  | 160040     |
| 410-50151-10 MSD   | Pipe 11 (2)        | Total/NA  | Solid  | 8270D  | 160040     |

### Metals

#### Prep Batch: 157480

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-1        | 4847-P6 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-2        | Pipe 15 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-3        | 4847-P2 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-4        | 4847-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-5        | 4847-P3 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-6        | 1043-P3 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-7        | DUP-2              | Total/NA  | Solid  | 3050B  |            |
| 410-50151-8        | Pipe 61 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-9        | 1043-P2 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-10       | Pipe 11 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-12       | Pipe 14 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-13       | 1248-P4 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-16       | DUP-1              | Total/NA  | Solid  | 3050B  |            |
| 410-50151-23       | Pipe 8 (2)         | Total/NA  | Solid  | 3050B  |            |
| 410-50151-25       | Pipe 10 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-26       | Pipe 9 (2)         | Total/NA  | Solid  | 3050B  |            |
| 410-50151-27       | Pipe 12 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-28       | Pipe 13 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-29       | Pipe 17 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-30       | Pipe 16 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-157480/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-157480/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-50151-2 MS     | Pipe 15 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-2 MSD    | Pipe 15 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50151-2 DU     | Pipe 15 (2)        | Total/NA  | Solid  | 3050B  |            |

#### Prep Batch: 157515

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50151-11  | 1248-P5 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50151-14  | 1248-P3 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50151-15  | 1248-P2 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50151-17  | Pipe 1 (2)       | Total/NA  | Solid  | 3050B  |            |
| 410-50151-18  | 1248-P1 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50151-19  | Pipe 2 (2)       | Total/NA  | Solid  | 3050B  |            |
| 410-50151-20  | Pipe 3 (2)       | Total/NA  | Solid  | 3050B  |            |
| 410-50151-21  | Pipe 5 (2)       | Total/NA  | Solid  | 3050B  |            |
| 410-50151-22  | Pipe 7 (2)       | Total/NA  | Solid  | 3050B  |            |
| 410-50151-24  | Pipe 6 (2)       | Total/NA  | Solid  | 3050B  |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Metals (Continued)

#### Prep Batch: 157515 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-31       | Pipe 60 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-157515/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-157515/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 158685

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-1        | 4847-P6 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-2        | Pipe 15 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-3        | 4847-P2 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-4        | 4847-P1 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-5        | 4847-P3 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-6        | 1043-P3 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-7        | DUP-2              | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-8        | Pipe 61 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-9        | 1043-P2 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-10       | Pipe 11 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-12       | Pipe 14 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-13       | 1248-P4 (3)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-16       | DUP-1              | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-23       | Pipe 8 (2)         | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-25       | Pipe 10 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-26       | Pipe 9 (2)         | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-27       | Pipe 12 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-28       | Pipe 13 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-29       | Pipe 17 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-30       | Pipe 16 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| MB 410-157480/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 157480     |
| LCS 410-157480/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-2 MS     | Pipe 15 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-2 MSD    | Pipe 15 (2)        | Total/NA  | Solid  | 6010C  | 157480     |
| 410-50151-2 DU     | Pipe 15 (2)        | Total/NA  | Solid  | 6010C  | 157480     |

#### Analysis Batch: 158735

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50151-11       | 1248-P5 (3)        | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-14       | 1248-P3 (3)        | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-15       | 1248-P2 (3)        | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-17       | Pipe 1 (2)         | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-18       | 1248-P1 (3)        | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-19       | Pipe 2 (2)         | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-20       | Pipe 3 (2)         | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-21       | Pipe 5 (2)         | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-22       | Pipe 7 (2)         | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-24       | Pipe 6 (2)         | Total/NA  | Solid  | 6010C  | 157515     |
| 410-50151-31       | Pipe 60 (2)        | Total/NA  | Solid  | 6010C  | 157515     |
| MB 410-157515/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 157515     |
| LCS 410-157515/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 157515     |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## General Chemistry

### Analysis Batch: 157442

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50151-1   | 4847-P6 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-2   | Pipe 15 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-3   | 4847-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-4   | 4847-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-5   | 4847-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-6   | 1043-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-7   | DUP-2            | Total/NA  | Solid  | Moisture |            |
| 410-50151-8   | Pipe 61 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-9   | 1043-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-10  | Pipe 11 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-11  | 1248-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-12  | Pipe 14 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-13  | 1248-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-14  | 1248-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-15  | 1248-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-16  | DUP-1            | Total/NA  | Solid  | Moisture |            |
| 410-50151-17  | Pipe 1 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-18  | 1248-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-19  | Pipe 2 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-20  | Pipe 3 (2)       | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 157462

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50151-21  | Pipe 5 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-22  | Pipe 7 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-23  | Pipe 8 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-24  | Pipe 6 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-25  | Pipe 10 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-26  | Pipe 9 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50151-27  | Pipe 12 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-28  | Pipe 13 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-29  | Pipe 17 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-30  | Pipe 16 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50151-31  | Pipe 60 (2)      | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: 4847-P6 (3)**

**Lab Sample ID: 410-50151-1**

Date Collected: 08/05/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: 4847-P6 (3)**

**Lab Sample ID: 410-50151-1**

Date Collected: 08/05/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 73.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 12:07       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 09:17       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:45       | WJM9    | ELLE |

**Client Sample ID: Pipe 15 (2)**

**Lab Sample ID: 410-50151-2**

Date Collected: 08/05/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: Pipe 15 (2)**

**Lab Sample ID: 410-50151-2**

Date Collected: 08/05/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 12:29       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 09:40       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 10:43       | WJM9    | ELLE |

**Client Sample ID: 4847-P2 (3)**

**Lab Sample ID: 410-50151-3**

Date Collected: 08/05/21 10:40

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: 4847-P2 (3)**

**Lab Sample ID: 410-50151-3**

**Date Collected: 08/05/21 10:40**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 80.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 12:52       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 10:02       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:35       | WJM9    | ELLE |

**Client Sample ID: 4847-P1 (3)**

**Lab Sample ID: 410-50151-4**

**Date Collected: 08/05/21 10:55**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: 4847-P1 (3)**

**Lab Sample ID: 410-50151-4**

**Date Collected: 08/05/21 10:55**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 88.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 13:15       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 10:25       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:41       | WJM9    | ELLE |

**Client Sample ID: 4847-P3 (3)**

**Lab Sample ID: 410-50151-5**

**Date Collected: 08/05/21 11:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: 4847-P3 (3)**

**Lab Sample ID: 410-50151-5**

**Date Collected: 08/05/21 11:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 89.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 13:38       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 10:47       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:22       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: 1043-P3 (3)**

**Lab Sample ID: 410-50151-6**

Date Collected: 08/05/21 11:35

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: 1043-P3 (3)**

**Lab Sample ID: 410-50151-6**

Date Collected: 08/05/21 11:35

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 14:00       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159833       | 08/12/21 18:24       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160160       | 08/13/21 12:35       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:25       | WJM9    | ELLE |

**Client Sample ID: DUP-2**

**Lab Sample ID: 410-50151-7**

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: DUP-2**

**Lab Sample ID: 410-50151-7**

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 16:39       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 11:10       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:28       | WJM9    | ELLE |

**Client Sample ID: Pipe 61 (2)**

**Lab Sample ID: 410-50151-8**

Date Collected: 08/05/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Client Sample ID: Pipe 61 (2)

Lab Sample ID: 410-50151-8

Date Collected: 08/05/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 80.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 14:23       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 11:32       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:38       | WJM9    | ELLE |

## Client Sample ID: 1043-P2 (3)

Lab Sample ID: 410-50151-9

Date Collected: 08/05/21 11:45

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

## Client Sample ID: 1043-P2 (3)

Lab Sample ID: 410-50151-9

Date Collected: 08/05/21 11:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 78.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 17:02       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 00:43       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:02       | WJM9    | ELLE |

## Client Sample ID: Pipe 11 (2)

Lab Sample ID: 410-50151-10

Date Collected: 08/04/21 08:45

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

## Client Sample ID: Pipe 11 (2)

Lab Sample ID: 410-50151-10

Date Collected: 08/04/21 08:45

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:49       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 17:25       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 00:28       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:06       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: 1248-P5 (3)**

**Lab Sample ID: 410-50151-11**

Date Collected: 08/04/21 09:00

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: 1248-P5 (3)**

**Lab Sample ID: 410-50151-11**

Date Collected: 08/04/21 09:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 14:43       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 00:51       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 01:39       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:38       | WJM9    | ELLE |

**Client Sample ID: Pipe 14 (2)**

**Lab Sample ID: 410-50151-12**

Date Collected: 08/04/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: Pipe 14 (2)**

**Lab Sample ID: 410-50151-12**

Date Collected: 08/04/21 09:10

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:49       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 17:47       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 02:02       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:31       | WJM9    | ELLE |

**Client Sample ID: 1248-P4 (3)**

**Lab Sample ID: 410-50151-13**

Date Collected: 08/04/21 09:30

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Client Sample ID: 1248-P4 (3)

Date Collected: 08/04/21 09:30

Date Received: 08/05/21 16:02

## Lab Sample ID: 410-50151-13

Matrix: Solid

Percent Solids: 86.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 14:46       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 02:26       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:18       | WJM9    | ELLE |

## Client Sample ID: 1248-P3 (3)

Date Collected: 08/04/21 10:00

Date Received: 08/05/21 16:02

## Lab Sample ID: 410-50151-14

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

## Client Sample ID: 1248-P3 (3)

Date Collected: 08/04/21 10:00

Date Received: 08/05/21 16:02

## Lab Sample ID: 410-50151-14

Matrix: Solid

Percent Solids: 85.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 18:10       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 02:49       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:34       | WJM9    | ELLE |

## Client Sample ID: 1248-P2 (3)

Date Collected: 08/04/21 10:10

Date Received: 08/05/21 16:02

## Lab Sample ID: 410-50151-15

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

## Client Sample ID: 1248-P2 (3)

Date Collected: 08/04/21 10:10

Date Received: 08/05/21 16:02

## Lab Sample ID: 410-50151-15

Matrix: Solid

Percent Solids: 92.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 15:08       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 03:13       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:21       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: DUP-1**

**Lab Sample ID: 410-50151-16**

**Date Collected: 08/04/21 00:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: DUP-1**

**Lab Sample ID: 410-50151-16**

**Date Collected: 08/04/21 00:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 15:31       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 03:37       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:15       | WJM9    | ELLE |

**Client Sample ID: Pipe 1 (2)**

**Lab Sample ID: 410-50151-17**

**Date Collected: 08/04/21 10:30**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

**Client Sample ID: Pipe 1 (2)**

**Lab Sample ID: 410-50151-17**

**Date Collected: 08/04/21 10:30**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 89.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 19:18       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 04:00       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:28       | WJM9    | ELLE |

**Client Sample ID: 1248-P1 (3)**

**Lab Sample ID: 410-50151-18**

**Date Collected: 08/04/21 10:35**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Client Sample ID: 1248-P1 (3)

## Lab Sample ID: 410-50151-18

Date Collected: 08/04/21 10:35

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 15:54       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 04:24       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:25       | WJM9    | ELLE |

## Client Sample ID: Pipe 2 (2)

## Lab Sample ID: 410-50151-19

Date Collected: 08/04/21 11:00

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

## Client Sample ID: Pipe 2 (2)

## Lab Sample ID: 410-50151-19

Date Collected: 08/04/21 11:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 88.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 18:33       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 04:48       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:18       | WJM9    | ELLE |

## Client Sample ID: Pipe 3 (2)

## Lab Sample ID: 410-50151-20

Date Collected: 08/04/21 11:15

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157442       | 08/06/21 09:02       | UGCW    | ELLE |

## Client Sample ID: Pipe 3 (2)

## Lab Sample ID: 410-50151-20

Date Collected: 08/04/21 11:15

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 76.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 16:17       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 05:11       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:31       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: Pipe 5 (2)**

**Lab Sample ID: 410-50151-21**

Date Collected: 08/04/21 11:20

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

**Client Sample ID: Pipe 5 (2)**

**Lab Sample ID: 410-50151-21**

Date Collected: 08/04/21 11:20

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 89.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 13:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 01:12       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160040       | 08/13/21 09:46       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160469       | 08/14/21 05:34       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:02       | WJM9    | ELLE |

**Client Sample ID: Pipe 7 (2)**

**Lab Sample ID: 410-50151-22**

Date Collected: 08/04/21 11:30

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

**Client Sample ID: Pipe 7 (2)**

**Lab Sample ID: 410-50151-22**

Date Collected: 08/04/21 11:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 85.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         | DL  |                 | 157579       | 08/06/21 14:43       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | DL  | 1000            | 158503       | 08/10/21 14:04       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 14:43       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 01:33       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 11:55       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:15       | WJM9    | ELLE |

**Client Sample ID: Pipe 8 (2)**

**Lab Sample ID: 410-50151-23**

Date Collected: 08/04/21 11:40

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Client Sample ID: Pipe 8 (2)

Lab Sample ID: 410-50151-23

Date Collected: 08/04/21 11:40

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         | DL  |                 | 157579       | 08/06/21 14:43       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | DL  | 1000            | 158503       | 08/10/21 14:26       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 14:43       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 01:53       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 01:05       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 12:04       | WJM9    | ELLE |

## Client Sample ID: Pipe 6 (2)

Lab Sample ID: 410-50151-24

Date Collected: 08/04/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

## Client Sample ID: Pipe 6 (2)

Lab Sample ID: 410-50151-24

Date Collected: 08/04/21 11:50

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 84.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 14:36       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158050       | 08/09/21 18:55       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 02:12       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:06       | WJM9    | ELLE |

## Client Sample ID: Pipe 10 (2)

Lab Sample ID: 410-50151-25

Date Collected: 08/04/21 12:30

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

## Client Sample ID: Pipe 10 (2)

Lab Sample ID: 410-50151-25

Date Collected: 08/04/21 12:30

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 87.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 13:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 02:14       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 02:35       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:57       | WJM9    | ELLE |

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# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: Pipe 9 (2)**

**Lab Sample ID: 410-50151-26**

**Date Collected: 08/04/21 12:15**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

**Client Sample ID: Pipe 9 (2)**

**Lab Sample ID: 410-50151-26**

**Date Collected: 08/04/21 12:15**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 90.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 13:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 02:35       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 02:57       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 12:01       | WJM9    | ELLE |

**Client Sample ID: Pipe 12 (2)**

**Lab Sample ID: 410-50151-27**

**Date Collected: 08/04/21 12:45**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

**Client Sample ID: Pipe 12 (2)**

**Lab Sample ID: 410-50151-27**

**Date Collected: 08/04/21 12:45**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 87.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 13:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 02:56       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 03:20       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 12:11       | WJM9    | ELLE |

**Client Sample ID: Pipe 13 (2)**

**Lab Sample ID: 410-50151-28**

**Date Collected: 08/04/21 13:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

## Client Sample ID: Pipe 13 (2)

Lab Sample ID: 410-50151-28

Date Collected: 08/04/21 13:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 90.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 13:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 03:16       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 03:42       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 12:07       | WJM9    | ELLE |

## Client Sample ID: Pipe 17 (2)

Lab Sample ID: 410-50151-29

Date Collected: 08/04/21 13:20

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

## Client Sample ID: Pipe 17 (2)

Lab Sample ID: 410-50151-29

Date Collected: 08/04/21 13:20

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 81.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157579       | 08/06/21 13:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 158385       | 08/10/21 03:37       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 04:05       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 11:54       | WJM9    | ELLE |

## Client Sample ID: Pipe 16 (2)

Lab Sample ID: 410-50151-30

Date Collected: 08/04/21 14:00

Matrix: Solid

Date Received: 08/05/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

## Client Sample ID: Pipe 16 (2)

Lab Sample ID: 410-50151-30

Date Collected: 08/04/21 14:00

Matrix: Solid

Date Received: 08/05/21 16:02

Percent Solids: 82.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 12:28       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 04:27       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157480       | 08/06/21 10:20       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158685       | 08/10/21 12:14       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

**Client Sample ID: Pipe 60 (2)**

**Lab Sample ID: 410-50151-31**

**Date Collected: 08/05/21 12:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157462       | 08/06/21 09:31       | UGCW    | ELLE |

**Client Sample ID: Pipe 60 (2)**

**Lab Sample ID: 410-50151-31**

**Date Collected: 08/05/21 12:00**

**Matrix: Solid**

**Date Received: 08/05/21 16:02**

**Percent Solids: 79.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157578       | 08/06/21 13:58       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 12:50       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 04:50       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157515       | 08/06/21 11:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 158735       | 08/10/21 13:41       | WJM9    | ELLE |

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-50151-32**

**Date Collected: 08/04/21 00:00**

**Matrix: Water**

**Date Received: 08/05/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 158775       | 08/10/21 20:31       | LCW8    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50151-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-50151-1   | 4847-P6 (3)      | Solid  | 08/05/21 09:10 | 08/05/21 16:02 |
| 410-50151-2   | Pipe 15 (2)      | Solid  | 08/05/21 09:30 | 08/05/21 16:02 |
| 410-50151-3   | 4847-P2 (3)      | Solid  | 08/05/21 10:40 | 08/05/21 16:02 |
| 410-50151-4   | 4847-P1 (3)      | Solid  | 08/05/21 10:55 | 08/05/21 16:02 |
| 410-50151-5   | 4847-P3 (3)      | Solid  | 08/05/21 11:00 | 08/05/21 16:02 |
| 410-50151-6   | 1043-P3 (3)      | Solid  | 08/05/21 11:35 | 08/05/21 16:02 |
| 410-50151-7   | DUP-2            | Solid  | 08/05/21 00:00 | 08/05/21 16:02 |
| 410-50151-8   | Pipe 61 (2)      | Solid  | 08/05/21 11:50 | 08/05/21 16:02 |
| 410-50151-9   | 1043-P2 (3)      | Solid  | 08/05/21 11:45 | 08/05/21 16:02 |
| 410-50151-10  | Pipe 11 (2)      | Solid  | 08/04/21 08:45 | 08/05/21 16:02 |
| 410-50151-11  | 1248-P5 (3)      | Solid  | 08/04/21 09:00 | 08/05/21 16:02 |
| 410-50151-12  | Pipe 14 (2)      | Solid  | 08/04/21 09:10 | 08/05/21 16:02 |
| 410-50151-13  | 1248-P4 (3)      | Solid  | 08/04/21 09:30 | 08/05/21 16:02 |
| 410-50151-14  | 1248-P3 (3)      | Solid  | 08/04/21 10:00 | 08/05/21 16:02 |
| 410-50151-15  | 1248-P2 (3)      | Solid  | 08/04/21 10:10 | 08/05/21 16:02 |
| 410-50151-16  | DUP-1            | Solid  | 08/04/21 00:00 | 08/05/21 16:02 |
| 410-50151-17  | Pipe 1 (2)       | Solid  | 08/04/21 10:30 | 08/05/21 16:02 |
| 410-50151-18  | 1248-P1 (3)      | Solid  | 08/04/21 10:35 | 08/05/21 16:02 |
| 410-50151-19  | Pipe 2 (2)       | Solid  | 08/04/21 11:00 | 08/05/21 16:02 |
| 410-50151-20  | Pipe 3 (2)       | Solid  | 08/04/21 11:15 | 08/05/21 16:02 |
| 410-50151-21  | Pipe 5 (2)       | Solid  | 08/04/21 11:20 | 08/05/21 16:02 |
| 410-50151-22  | Pipe 7 (2)       | Solid  | 08/04/21 11:30 | 08/05/21 16:02 |
| 410-50151-23  | Pipe 8 (2)       | Solid  | 08/04/21 11:40 | 08/05/21 16:02 |
| 410-50151-24  | Pipe 6 (2)       | Solid  | 08/04/21 11:50 | 08/05/21 16:02 |
| 410-50151-25  | Pipe 10 (2)      | Solid  | 08/04/21 12:30 | 08/05/21 16:02 |
| 410-50151-26  | Pipe 9 (2)       | Solid  | 08/04/21 12:15 | 08/05/21 16:02 |
| 410-50151-27  | Pipe 12 (2)      | Solid  | 08/04/21 12:45 | 08/05/21 16:02 |
| 410-50151-28  | Pipe 13 (2)      | Solid  | 08/04/21 13:00 | 08/05/21 16:02 |
| 410-50151-29  | Pipe 17 (2)      | Solid  | 08/04/21 13:20 | 08/05/21 16:02 |
| 410-50151-30  | Pipe 16 (2)      | Solid  | 08/04/21 14:00 | 08/05/21 16:02 |
| 410-50151-31  | Pipe 60 (2)      | Solid  | 08/05/21 12:00 | 08/05/21 16:02 |
| 410-50151-32  | Trip Blank       | Water  | 08/04/21 00:00 | 08/05/21 16:02 |

## Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike  
Lancaster, PA 17601  
Phone 717-656-2300 Fax 717-656-2681

## Chain of Custody Record



410-50151 Chain of Custody



Environment Testing  
America

|   |  |  |             |   |   |   |  |
|---|--|--|-------------|---|---|---|--|
| <b>Client Information</b>   |  | Sampler: <u>SP/ES/DH</u>   |             | Lab PM: <u>Carter, Amek A</u>   |   | COC No: <u>410-30581-9562.1</u>   |  |
| Client Contact: <u>Mark Schaeffer</u>   |  | Phone: <u>484 467 3657</u>   |             | E-Mail: <u>Loran.Carter@eurofinset.com</u>  |   | Page: <u>Page 1 of 5</u>  |  |
| Company: <u>Stantec Consulting Corp.</u>  |  | PWSID: _____   |             | State of Origin: <u>PA</u>  |   | Job #   |  |
| Address: <u>1060 Andrew Drive Suite 140</u>   |  | Due Date Requested:  |             | <b>Analysis Requested</b>   |   | Preservation Codes:   |  |
| City: <u>West Chester</u>   |  | TAT Requested (days): <u>5 day</u>   |             | <div style="display: flex; justify-content: space-between;"> <div> <u>8280C - PA Combo of Leaded and Unleaded Gasoline</u><br/> <u>6010C, 8270D, Moisture</u><br/> <u>8280C_UST - PA Combo of Leaded and Unleaded Gasoline</u> </div> <div> <u>8280C_UST - PA Combo of Leaded and Unleaded Gasoline</u> </div> </div> |   | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Z - other (specify) |  |
| State, Zip: <u>PA, 19380</u>  |  | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No   |             |   |   | Other:  |  |
| Phone: _____  |  | PO # _____   |             |   |   |   |  |
| Email: <u>mark.schaeffer@stantec.com</u>  |  | Purchase Order Requested   |             |   |   |   |  |
| Project Name: <u>PBF Logistics</u>  |  | Project # <u>41007459</u>  |             |   |   |   |  |
| Site: <u>51st Street Terminal</u>   |  | SSOW#  |             |   |   |   |  |
| <b>Sample Identification</b>  |  | Sample Date  | Sample Time | Sample Type (C=Comp, G=grab)  | Matrix (W=water, S=solid, O=oil, BT=Tissue, AA=Air) | Special Instructions/Note:  |  |
|   |  |  |             |   |   | Preservation Code: <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> A  |  |
| <u>4847-P6 (3)</u>  |  | <u>8/5/21</u>  | <u>0910</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>Pipe 15 (2)</u>  |  | <u>8/5/21</u>  | <u>0930</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>4847-P2 (3)</u>  |  | <u>8/5/21</u>  | <u>1046</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>4847-P1 (3)</u>  |  | <u>8/5/21</u>  | <u>1055</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>4847-P3 (3)</u>  |  | <u>8/5/21</u>  | <u>1100</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>1043-P3 (3)</u>  |  | <u>8/5/21</u>  | <u>1135</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>DUP-2</u>  |  | <u>8/5/21</u>  | <u>-</u>    | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>Pipe 61 (2)</u>  |  | <u>8/5/21</u>  | <u>1150</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
| <u>1043-P2 (3)</u>  |  | <u>8/5/21</u>  | <u>1145</u> | <u>G</u>  | <u>Solid</u>  | <u>X X X</u>  |  |
|   |  |  |             |   | <u>Solid</u>  |   |  |
|   |  |  |             |   | <u>Solid</u>  |   |  |
| <b>Possible Hazard Identification</b>   |  | <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |             |   |   | <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months  |  |
| Deliverable Requested: I, II, III, IV, Other (specify)                                    |  | Special Instructions/QC Requirements:  |             |   |   |   |  |
| Empty Kit Relinquished by: _____  |  | Date: _____  |             | Time: _____   |   | Method of Shipment: _____   |  |
| Relinquished by: <u>[Signature]</u>   |  | Date/Time: <u>8/5/21 1225</u>  |             | Company: <u>Stantec</u>   |   | Received by: <u>[Signature]</u>   |  |
| Relinquished by: <u>[Signature]</u>   |  | Date/Time: <u>8/5/21 1555</u>  |             | Company: _____  |   | Received by: _____  |  |
| Relinquished by: _____  |  | Date/Time: _____   |             | Company: _____  |   | Received by: <u>[Signature]</u>   |  |
| Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  | Custody Seal No. _____   |             | Cooler Temperature (°C) and Other Remarks: <u>19-27</u>   |   | Date/Time: <u>8/5/21 1602</u>   |  |

EAM

EAM

Ver 06/08/2021

## Chain of Custody Record

|  |  |  |             |   |   |   |   |   |  |
|--|--|--|-------------|---|---|---|---|---|--|
| <b>Client Information</b>  |  | Sampler<br>IA/DC/DH  |             | Lab PM<br>Carter, Amek A  |   | Camer Tracking No(s)  |   | COC No<br>410-30581-9562 2  |  |
| Client Contact<br>Mark Schaeffer   |  | Phone<br>(484) 467-3657  |             | E-Mail<br>Loran Carter@eurofinset.com   |   | State of Origin<br>PA   |   | Page<br>Page 2 of 5   |  |
| Company<br>Stantec Consulting Corp.  |  | PWSID  |             | Analysis Requested  |   | Job #   |   | Preservation Codes:   |  |
| Address<br>1060 Andrew Drive Suite 140   |  | Due Date Requested:  |             | 5260C - PA Combo of Leaded and Unleaded Gasoline<br>6010C, 6270D, Moisture<br>6260C, UST - PA Combo of Leaded and Unleaded Gasoline |   |   |   | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA              |  |
| City<br>West Chester   |  | TAT Requested (days):<br>5 days  |             |   |   |   |   | M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Z - other (specify) |  |
| State, Zip<br>PA, 19380  |  | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No |             |   |   |   |   | Other:  |  |
| Phone  |  | PO #   |             |   |   |   |   |   |  |
| Email<br>mark.schaeffer@stantec.com  |  | Purchase Order Requested   |             |   |   |   |   |   |  |
| Project Name<br>PBF Fisheries  |  | Project #<br>41007459  |             |   |   |   |   |   |  |
| Site<br>51st Street Terminal   |  | SSOW#  |             |   |   |   |   |   |  |
| <b>Sample Identification</b>   |  | Sample Date  | Sample Time | Sample Type<br>(C=comp, G=grab)   | Matrix<br>(W=water, S=solid, O=oil, ST=Soil, A=Air) |   |   | Special Instructions/Note:  |  |
| Pipe 11 (2)  |  | 8/4/21   | 0845        | G   | Solid   | X   | X | X   |  |
| 1248 - P5 (3)  |  | 8/4/21   | 0900        | G   | Solid   | X   | X | X   |  |
| Pipe 14 (2)  |  | 8/4/21   | 0910        | G   | Solid   | X   | X | X   |  |
| 1248 - P4 (3)  |  | 8/4/21   | 0930        | G   | Solid   | X   | X | X   |  |
| 1248 - P3 (3)  |  | 8/4/21   | 1000        | G   | Solid   | X   | X | X   |  |
| 1248 - P2 (3)  |  | 8/4/21   | 1010        | G   | Solid   | X   | X | X   |  |
| DUP - 1  |  | 8/4/21   | —           | G   | Solid   | X   | X | X   |  |
| Pipe 1 (2)   |  | 8/4/21   | 1030        | G   | Solid   | X   | X | X   |  |
| 1248 - P1 (3)  |  | 8/4/21   | 1035        | G   | Solid   | X   | X | X   |  |
| Pipe 2 (2)   |  | 8/4/21   | 1100        | G   | Solid   | X   | X | X   |  |
| Pipe 3 (2)   |  | 8/4/21   | 1115        | G   | Solid   | X   | X | X   |  |
| <b>Possible Hazard Identification</b>  |  |  |             |   |   | <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>  |   |   |  |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |  |             |   |   | <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |   |   |  |
| Deliverable Requested: I, II, III, IV, Other (specify)   |  |  |             |   |   | Special Instructions/QC Requirements:   |   |   |  |
| Empty Kit Relinquished by:   |  | Date:  |             | Time  |   | Method of Shipment  |   |   |  |
| Relinquished by:   |  | Date/Time: 8/5/21 1225   |             | Company: Stantec  |   | Received by:  |   | Date/Time: 8/5/21 1225  |  |
| Relinquished by:   |  | Date/Time: 8/5/21 1556   |             | Company:  |   | Received by:  |   | Date/Time:  |  |
| Relinquished by:   |  | Date/Time:   |             | Company:  |   | Received by:  |   | Date/Time: 8/5/21 1100Z   |  |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No   |  | Custody Seal No.:  |             | Cooler Temperature(s) °C and Other Remarks:   |   | 1.9-2.7   |   |   |  |



### Environment Testing, America

|   |  |  |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
|---|--|--|--|--|--|-------------------------------------|--|---|---|--|--|---|--|-------------------------------|--|---|--|-----------------------------------|--|-----------------------------------|--|--|--|
| <b>Client Information</b>   |  | Sampler<br>IA/DC/DH  |  | Lab PM<br>Carter, Amek A   |  | Camer Tracking No(s)                |  | COC No<br>410-30581-9562 3                                      |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Client Contact:<br>Mark Schaeffer   |  | Phone<br>484 467 3657  |  | E-Mail<br>Loran Carter@euroinset.com   |  | State of Origin<br>PA               |  | Page<br>Page 3 of 5   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Company<br>Stantec Consulting Corp.   |  | PWSID  |  | <b>Analysis Requested</b>  |  |                                     |  |   | Job #   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Address<br>1060 Andrew Drive Suite 140  |  | Due Date Requested:  |  | <div>Field Filtered Sample (Yes or No)</div> <div>8260C - PA Combo of Leaded and Unleaded Gasoline</div> <div>6010C, 8270D, Moisture</div> <div>8260C_UST - PA Combo of Leaded and Unleaded Gasoline</div> <div>Total Number of Containers</div> |  |                                     |  |   | <b>Preservation Codes:</b><br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Z - other (specify) |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| City:<br>West Chester   |  | TAT Requested (days):<br>5 days  |  |  |  |                                     |  |   |   |  |  |   |  | <b>Other:</b>                 |  |   |  |                                   |  |                                   |  |  |  |
| State, Zip<br>PA, 19380   |  | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Phone:  |  | PO #   |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Email:<br>mark.schaeffer@stantec.com  |  | Purchase Order Requested   |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Project Name<br>PBF Logistics   |  | WO #   |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Site<br>51 <sup>st</sup> Street Terminal  |  | Project #<br>41007459  |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| SSOW#   |  |  |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| <b>Sample Identification</b>  |  | <b>Sample Date</b>   |  | <b>Sample Time</b>   |  | <b>Sample Type (C=Comp, G=grab)</b> |  | <b>Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)</b> |   | <b>Field Filtered Sample (Yes or No)</b>   |  | <b>8260C - PA Combo of Leaded and Unleaded Gasoline</b> |  | <b>6010C, 8270D, Moisture</b> |  | <b>8260C_UST - PA Combo of Leaded and Unleaded Gasoline</b> |  | <b>Total Number of Containers</b> |  | <b>Special Instructions/Note:</b> |  |  |  |
|   |  |  |  |  |  |                                     |  |   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Pipe 5 (2)  |  | 8/4/21   |  | 1120   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 7 (2)  |  | 8/4/21   |  | 1130   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 8 (2)  |  | 8/4/21   |  | 1140   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 6 (2)  |  | 8/4/21   |  | 1150   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 10 (2)   |  | 8/4/21   |  | 1230   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 9 (2)  |  | 8/4/21   |  | 1215   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 12 (2)   |  | 8/4/21   |  | 1245   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 13 (2)   |  | 8/4/21   |  | 1300   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 17 (2)   |  | 8/4/21   |  | 1320   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
| Pipe 16 (2)   |  | 8/4/21   |  | 1400   |  | G                                   |  | Solid   |   |  |  | X   |  | X                             |  | X   |  |                                   |  |                                   |  |  |  |
|   |  |  |  |  |  |                                     |  | Solid   |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| <b>Possible Hazard Identification</b><br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |  |  |  |  |                                     |  |   |   | <b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Deliverable Requested: I, II, III, IV, Other (specify)  |  |  |  |  |  |                                     |  |   |   | Special Instructions/QC Requirements:  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Empty Kit Relinquished by:  |  |  |  | Date:  |  |                                     |  | Time:   |   |  |  | Method of Shipment:                                     |  |                               |  |   |  |                                   |  |                                   |  |  |  |
| Relinquished by: [Signature]  |  |  |  | Date/Time: 8/5/21 1225   |  |                                     |  | Company: Stantec  |   |  |  | Received by: Fern                                       |  |                               |  | Date/Time: 8/5/21 12:25                                     |  |                                   |  | Company:                          |  |  |  |
| Relinquished by: [Signature]  |  |  |  | Date/Time: 8/5/21 1555   |  |                                     |  | Company:  |   |  |  | Received by:  |  |                               |  | Date/Time:  |  |                                   |  | Company:                          |  |  |  |
| Relinquished by:  |  |  |  | Date/Time:   |  |                                     |  | Company:  |   |  |  | Received by: [Signature]                                |  |                               |  | Date/Time: 8/5/21 16:02                                     |  |                                   |  | Company: [Signature]              |  |  |  |
| Custody Seals Intact:<br><input type="checkbox"/> Yes <input type="checkbox"/> No   |  |  |  | Custody Seal No.:  |  |                                     |  | Cooler Temperature(s) °C and Other Remarks:<br>1.9-2.7          |   |  |  |   |  |                               |  |   |  |                                   |  |                                   |  |  |  |

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-50151-1

**Login Number: 50151**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

**List Number: 1**

**Creator: Metzger, Katherine A**

| Question  | Answer | Comment                             |
|---|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.  | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.   | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.   | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.  | N/A    |                                     |
| COC is present.   | True   |                                     |
| COC is filled out in ink and legible.   | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.  | True   |                                     |
| Containers are not broken or leaking.   | True   |                                     |
| Sample collection date/times are provided.  | True   |                                     |
| Appropriate sample containers are used.   | True   |                                     |
| Sample bottles are completely filled.   | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.  | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?   | True   |                                     |
| Sample Preservation Verified.   | N/A    |                                     |
| Residual Chlorine Checked.  | N/A    |                                     |
| Sample custody seals are intact.  | True   |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-50281-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/13/2021 1:14:33 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Amek Carter  
Project Manager  
8/13/2021 1:14:33 PM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *3        | ISTD response or retention time outside acceptable limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| F2        | MS/MSD RPD exceeds control limits  |
| FH        | MS and/or MSD recovery above control limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| E         | Result exceeded calibration range.  |
| F2        | MS/MSD RPD exceeds control limits   |
| F3        | Duplicate RPD exceeds the control limit   |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

# Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Job ID: 410-50281-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

### Narrative

#### Job Narrative 410-50281-1

#### Receipt

The samples were received on 8/6/2021 3:23 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6°C and 1.9°C

#### Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC):

Entered based on other samples and received containers.

Pipe 77 (2) (410-50281-7)

The following samples were listed on the Chain of Custody (COC); however, no samples were received:

Pipe 60 (2)

DUP-3 (410-50281-1), 7551-P5 (3) (410-50281-2), Pipe 75 (2) (410-50281-3), 7551-P1 (3) (410-50281-4), Pipe 87 (2) (410-50281-5), 7551-P2 (3) (410-50281-6), Pipe 77 (2) (410-50281-7), Pipe 76 (2) (410-50281-8), 7551-P3 (3) (410-50281-9), Trip Blank (410-50281-10), Pipe 53 (2) (410-50281-11), 1044-P4 (3) (410-50281-12), Pipe 55 (2) (410-50281-13), Pipe 78 (2) (410-50281-14), Pipe 79 (2) (410-50281-15), 7551-P7 (3) (410-50281-16), Pipe 82 (2) (410-50281-17), 7551-P6 (3) (410-50281-18), Pipe 81 (2) (410-50281-19), Pipe 83 (2) (410-50281-20), Pipe 80 (2) (410-50281-21), Pipe 50 (2) (410-50281-22), Pipe 49 (2) (410-50281-23), Pipe 45 (2) (410-50281-24), Pipe 47 (2) (410-50281-25), Pipe 46 (2) (410-50281-26), Pipe 48 (2) (410-50281-27), 1043-P5 (3) (410-50281-28), 1043-P4 (3) (410-50281-29), 1043-P1 (3) (410-50281-30), Pipe 51 (2) (410-50281-31) and Pipe 52 (2) (410-50281-32).

#### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Pipe 75 (2) (410-50281-3), Pipe 87 (2) (410-50281-5), Pipe 55 (2) (410-50281-13), 7551-P7 (3) (410-50281-16), Pipe 45 (2) (410-50281-24), Pipe 47 (2) (410-50281-25) and Pipe 46 (2) (410-50281-26). Elevated reporting limits (RLs) are provided.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: Pipe 53 (2) (410-50281-11). The sample(s) was re-analyzed and ISTD response was outside control limits.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: Pipe 51 (2) (410-50281-31). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: DUP-3

## Lab Sample ID: 410-50281-1

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 4.8    | J         | 6.1 | 0.49 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1.5    | J         | 6.1 | 0.61 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 12     |           | 6.1 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 14     |           | 12  | 1.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 4.3    | J         | 6.1 | 0.61 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 3.6    | J         | 6.1 | 2.4  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 7.3    |           | 6.1 | 0.61 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 0.54   | J         | 6.1 | 0.49 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 7.0    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 19     | FH F2     | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 22     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 25     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 24     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 20     | F2        | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 4.9    | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 26     | FH F2     | 19  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 34     | FH F2     | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 26     |           | 1.6 | 0.63 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

## Client Sample ID: 7551-P5 (3)

## Lab Sample ID: 410-50281-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 8.0    | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 11     | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 15     | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 9.8    | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 11     | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 8.1    | J         | 18  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 16     | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 25     |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

## Client Sample ID: Pipe 75 (2)

## Lab Sample ID: 410-50281-3

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 44     | J         | 320 | 25   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 100    | J         | 320 | 32   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 180    | J         | 320 | 38   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 240    | J         | 640 | 89   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 39     | J         | 320 | 32   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 65     | J         | 320 | 32   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 17     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 17     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 27     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 30     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 18     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 15     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 48     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 190    |           | 1.6 | 0.62 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: 7551-P1 (3)

### Lab Sample ID: 410-50281-4

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 3.3    | J         | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 1.9    | J         | 7.5 | 0.90 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 3.1    | J         | 15  | 2.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 1.1    | J         | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 5.8    | J         | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 99     |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 330    |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 260    |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 370    |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 200    |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 290    |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 31     | J         | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 450    |           | 56  | 13   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 710    |           | 56  | 11   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 42     |           | 2.1 | 0.86 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 87 (2)

### Lab Sample ID: 410-50281-5

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 100    | J         | 330 | 26   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 79     | J         | 330 | 40   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 120    | J         | 660 | 93   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 100    | J         | 330 | 33   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 250    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 570    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 640    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 730    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 590    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 510    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 180    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 260    |           | 20  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1100   |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 720    |           | 1.4 | 0.55 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551-P2 (3)

### Lab Sample ID: 410-50281-6

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 2900   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 4300   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 3200   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 3500   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 1800   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 3800   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 2200   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene - DL    | 12000  |           | 110 | 27   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Pyrene - DL          | 7800   |           | 110 | 23   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Lead                 | 37     |           | 1.8 | 0.74 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 77 (2)

### Lab Sample ID: 410-50281-7

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Ethylbenzene | 1400   |           | 360 | 29  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 77 (2) (Continued)

Lab Sample ID: 410-50281-7

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 8100   |           | 360 | 36   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 100    | J         | 360 | 44   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 3500   |           | 730 | 100  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 2000   |           | 360 | 150  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 19000  |           | 360 | 36   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 1800   |           | 360 | 29   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 190    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 270    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 200    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 270    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 370    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 900    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 870    |           | 22  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 560    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 210    |           | 1.8 | 0.71 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 76 (2)

Lab Sample ID: 410-50281-8

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Methyl tertiary butyl ether | 1.1    | J         | 4.8 | 0.48 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 14     | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 83     |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 120    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 190    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 150    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 140    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 5.6    | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 76     |           | 18  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 180    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 270    |           | 1.6 | 0.62 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551-P3 (3)

Lab Sample ID: 410-50281-9

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 0.71   | J         | 6.3 | 0.63 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 0.84   | J         | 6.3 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 0.85   | J         | 6.3 | 0.63 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 0.77   | J         | 6.3 | 0.63 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 65     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 220    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 200    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 230    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 140    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 210    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 32     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 260    |           | 23  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 340    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 44     |           | 1.9 | 0.76 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Trip Blank

Lab Sample ID: 410-50281-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 53 (2)

Lab Sample ID: 410-50281-11

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 170    | J         | 220 | 45   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 220    |           | 220 | 45   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 230    |           | 220 | 45   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 160    | J         | 220 | 45   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 170    | J         | 220 | 45   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 56     | J         | 220 | 54   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 220    |           | 220 | 45   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Lead                 | 83     |           | 1.4 | 0.58 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1044-P4 (3)

Lab Sample ID: 410-50281-12

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 1.3    | J         | 6.7 | 0.67 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 64     |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 120    |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 95     |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 120    |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 77     |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 120    |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 37     |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 99     |           | 23  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 150    |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 2100   |           | 1.9 | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 55 (2)

Lab Sample ID: 410-50281-13

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 110    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 510    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 460    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 580    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 330    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 580    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 92     |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 1100   |           | 23  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 930    |           | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 750    | F2        | 1.8 | 0.73 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 78 (2)

Lab Sample ID: 410-50281-14

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|-----|-------|---------|---|--------|-----------|
| Ethylbenzene           | 140    | J         | 550  | 44  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1100   |           | 550  | 55  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 110    | J         | 550  | 65  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 470    | J         | 1100 | 150 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 290    | J         | 550  | 220 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 2200   |           | 550  | 55  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 180    | J         | 550  | 44  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 31     |           | 28   | 5.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 22     | J         | 28   | 5.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 21     | J         | 28   | 5.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 40     |           | 28   | 5.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 78 (2) (Continued)

Lab Sample ID: 410-50281-14

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[g,h,i]perylene | 56     |           | 28  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 30     |           | 28  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 64     |           | 28  | 6.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 54     |           | 28  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 94     |           | 1.9 | 0.74 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 79 (2)

Lab Sample ID: 410-50281-15

| Analyte                     | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene                | 1700   |           | 250  | 20   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene      | 39     | J         | 250  | 25   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total              | 110    | J         | 510  | 71   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                     | 26     | J         | 250  | 25   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene                 | 820    |           | 250  | 100  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene            | 1000   |           | 250  | 20   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene - DL | 27000  |           | 2500 | 250  | ug/Kg | 500     | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 35     |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 62     |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 47     |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 44     |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 41     |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 80     |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 130    |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 190    |           | 18   | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 100    |           | 18   | 3.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 14     |           | 1.3  | 0.51 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551-P7 (3)

Lab Sample ID: 410-50281-16

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 42     | J         | 340 | 27   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 180    | J         | 340 | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 220    | J         | 340 | 41   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 300    | J         | 680 | 95   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 420    |           | 340 | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 18     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 26     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 39     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 48     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 95     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 34     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 35     |           | 20  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 44     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 18     |           | 1.6 | 0.65 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 82 (2)

Lab Sample ID: 410-50281-17

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 1.0    | J         | 7.3 | 0.58 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 0.73   | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 6.8    | J         | 7.3 | 0.87 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 5.9    | J         | 15  | 2.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 82 (2) (Continued)

Lab Sample ID: 410-50281-17

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene                | 6.2    | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.2    | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 110    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 360    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 390    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 510    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 390    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 390    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 32     |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 450    |           | 24  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 570    |           | 24  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 200    |           | 1.9 | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551-P6 (3)

Lab Sample ID: 410-50281-18

| Analyte                     | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene                | 4100   |           | 460  | 37   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene      | 15000  |           | 460  | 46   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                     | 8400   |           | 460  | 55   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total              | 31000  |           | 920  | 130  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                     | 720    |           | 460  | 46   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene                 | 1100   |           | 460  | 180  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene            | 2000   |           | 460  | 37   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene - DL | 51000  |           | 4600 | 460  | ug/Kg | 500     | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 21     | J         | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 26     |           | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 17     | J         | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 29     |           | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 43     |           | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 63     |           | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 31     |           | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 74     |           | 25   | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 36     |           | 25   | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 21     |           | 2.3  | 0.90 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 81 (2)

Lab Sample ID: 410-50281-19

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 1.4    | J         | 5.6 | 0.44 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2-Dichloroethane     | 1.3    | J         | 5.6 | 0.67 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 31     |           | 5.6 | 0.67 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 7.3    | J         | 11  | 1.6  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 12     |           | 5.6 | 0.56 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.1    | J         | 5.6 | 0.56 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 48     |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 120    |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 330    |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 370    |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 430    |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 130    |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 12     | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 97     |           | 20  | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 81 (2) (Continued)

Lab Sample ID: 410-50281-19

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Pyrene  | 140    |           | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead    | 500    |           | 1.4 | 0.56 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 83 (2)

Lab Sample ID: 410-50281-20

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene                | 5.5    |           | 5.4 | 0.65 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 2.8    | J         | 11  | 1.5  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 3.8    | J         | 5.4 | 0.54 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 0.58   | J         | 5.4 | 0.54 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 55     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 350    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 330    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 490    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 300    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 370    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 15     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 190    |           | 20  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 560    |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 76     |           | 1.2 | 0.50 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 80 (2)

Lab Sample ID: 410-50281-21

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 3.8    | J         | 5.9 | 0.47 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1.4    | J         | 5.9 | 0.59 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 11     |           | 5.9 | 0.71 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 12     |           | 12  | 1.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 3.8    | J         | 5.9 | 0.59 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 5.7    | J         | 5.9 | 0.59 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 33     |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 57     |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 94     |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 100    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 110    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 65     |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 21     |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 110    |           | 19  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 120    |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 30     |           | 1.4 | 0.56 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 50 (2)

Lab Sample ID: 410-50281-22

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 9.8    | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 6.2    | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 9.9    | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 11     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 9.7    | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 10     | J         | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 13     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 320    |           | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 49 (2)

### Lab Sample ID: 410-50281-23

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 1.1    | J         | 7.0 | 0.70 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 13     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 19     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 20     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 27     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 22     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 25     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 52     |           | 20  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 50     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 78     |           | 1.4 | 0.55 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 45 (2)

### Lab Sample ID: 410-50281-24

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 75     | J         | 470 | 47   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 22     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 6.7    | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 6.7    | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 14     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 9.3    | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 11     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 32     |           | 20  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 15     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 330    |           | 1.7 | 0.68 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 47 (2)

### Lab Sample ID: 410-50281-25

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[g,h,i]perylene | 80     | J         | 190 | 38   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Lead                 | 69     |           | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 46 (2)

### Lab Sample ID: 410-50281-26

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 130    | J         | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 370    | J         | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 380    | J         | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 440    |           | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 340    | J         | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Chrysene             | 460    |           | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 560    |           | 400 | 97   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene               | 700    |           | 400 | 81   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Lead                 | 600    |           | 1.8 | 0.70 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 48 (2)

### Lab Sample ID: 410-50281-27

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 0.65   | J         | 7.9 | 0.64 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 2.3    | J         | 7.9 | 0.95 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 3.5    | J         | 16  | 2.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 0.93   | J         | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 0.87   | J         | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 19     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 48 (2) (Continued)

Lab Sample ID: 410-50281-27

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]pyrene       | 15     | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 14     | J         | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 27     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 45     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 79     |           | 19  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 74     |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 15     |           | 1.3 | 0.54 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1043-P5 (3)

Lab Sample ID: 410-50281-28

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 1.3    | J         | 9.5 | 0.95 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 110    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 290    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 200    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 300    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 150    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 280    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 43     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 470    |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 470    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 560    | F2        | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1043-P4 (3)

Lab Sample ID: 410-50281-29

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 2.6    | J         | 8.7 | 0.87 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 420    |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 3100   |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 2700   |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 2800   |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 1700   |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 2600   |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 54     |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 820    |           | 21  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 4100   |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 880    |           | 1.5 | 0.61 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1043-P1 (3)

Lab Sample ID: 410-50281-30

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 1.6    | J         | 8.2 | 0.82 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 66     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 210    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 160    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 190    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 110    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 200    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 28     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 280    |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 350    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 87     |           | 1.4 | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Client Sample ID: Pipe 51 (2)

Lab Sample ID: 410-50281-31

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 1.5    | J         | 9.7 | 0.97 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 80     | J         | 100 | 21   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 710    |           | 100 | 21   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 270    |           | 100 | 25   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 100    |           | 100 | 21   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 460    |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 52 (2)

Lab Sample ID: 410-50281-32

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 18     | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 28     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 34     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 40     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 64     |           | 23  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 39     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 110    |           | 1.4 | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: DUP-3

Lab Sample ID: 410-50281-1

Date Collected: 08/06/21 00:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 85.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 4.8    | J         | 6.1 | 0.49 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| 1,3,5-Trimethylbenzene      | 1.5    | J         | 6.1 | 0.61 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Toluene                     | 12     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Xylenes, Total              | 14     |           | 12  | 1.7  | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Benzene                     | 4.3    | J         | 6.1 | 0.61 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Naphthalene                 | 3.6    | J         | 6.1 | 2.4  | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| 1,2,4-Trimethylbenzene      | 7.3    |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Isopropylbenzene            | 0.54   | J         | 6.1 | 0.49 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| 1,2-Dibromoethane           | ND     |           | 6.1 | 0.49 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 13:13 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 08/08/21 12:04 | 08/10/21 13:13 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/08/21 12:04 | 08/10/21 13:13 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 7.0    | J         | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Benzo[a]anthracene   | 19     | FH F2     | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Benzo[a]pyrene       | 22     |           | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Benzo[b]fluoranthene | 25     |           | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Benzo[g,h,i]perylene | 24     |           | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Chrysene             | 20     | F2        | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Fluorene             | 4.9    | J         | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Phenanthrene         | 26     | FH F2     | 19 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Pyrene               | 34     | FH F2     | 19 | 3.9 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 16:36 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 16:36 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 16:36 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 26     |           | 1.6 | 0.63 | mg/Kg | ☼ | 08/09/21 03:32 | 08/11/21 15:00 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.6   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: 7551-P5 (3)

Lab Sample ID: 410-50281-2

Date Collected: 08/06/21 10:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 93.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 5.5 | 0.44 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| 1,2-Dichloroethane | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 7551-P5 (3)

Lab Sample ID: 410-50281-2

Date Collected: 08/06/21 10:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 93.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Toluene                      | ND        |           | 5.5      | 0.66 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Benzene                      | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Naphthalene                  | ND        |           | 5.5      | 2.2  | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Isopropylbenzene             | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 121       |           | 54 - 135 |      |       |   | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 |      |       |   | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |      |       |   | 08/08/21 12:04 | 08/10/21 17:23 | 1       |
| Toluene-d8 (Surr)            | 91        |           | 52 - 141 |      |       |   | 08/08/21 12:04 | 08/10/21 17:23 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Benzo[a]anthracene      | 8.0       | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Benzo[a]pyrene          | 11        | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Benzo[b]fluoranthene    | 15        | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Benzo[g,h,i]perylene    | 9.8       | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Chrysene                | 11        | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Fluorene                | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Phenanthrene            | 8.1       | J         | 18       | 4.3 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Pyrene                  | 16        | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 88        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 17:44 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 17:44 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 25     |           | 1.6 | 0.64 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 15:04 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.6    |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Pipe 75 (2)

Lab Sample ID: 410-50281-3

Date Collected: 08/06/21 11:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 44     | J         | 320 | 25  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| 1,2-Dichloroethane     | ND     |           | 320 | 38  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| 1,3,5-Trimethylbenzene | 100    | J         | 320 | 32  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| Toluene                | 180    | J         | 320 | 38  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 75 (2)

Lab Sample ID: 410-50281-3

Date Collected: 08/06/21 11:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                       | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>         | <b>240</b> | <b>J</b>  | 640 | 89  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| Methyl tertiary butyl ether   | ND         |           | 320 | 32  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| <b>Benzene</b>                | <b>39</b>  | <b>J</b>  | 320 | 32  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| Naphthalene                   | ND         |           | 320 | 130 | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| <b>1,2,4-Trimethylbenzene</b> | <b>65</b>  | <b>J</b>  | 320 | 32  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| Isopropylbenzene              | ND         |           | 320 | 25  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| 1,2-Dibromoethane             | ND         |           | 320 | 25  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:08 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 80        |           | 54 - 135 | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| 4-Bromofluorobenzene (Surr)  | 73        |           | 50 - 131 | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| Dibromofluoromethane (Surr)  | 75        |           | 50 - 141 | 08/08/21 12:23 | 08/11/21 15:08 | 50      |
| Toluene-d8 (Surr)            | 71        |           | 52 - 141 | 08/08/21 12:23 | 08/11/21 15:08 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene                  | ND        |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>17</b> | <b>J</b>  | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>17</b> | <b>J</b>  | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>27</b> |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>30</b> |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Chrysene</b>             | <b>18</b> | <b>J</b>  | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Fluorene</b>             | <b>15</b> | <b>J</b>  | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| Phenanthrene                | ND        |           | 21 | 4.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| <b>Pyrene</b>               | <b>48</b> |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:06 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 18:06 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 18:06 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>190</b> |           | 1.6 | 0.62 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 15:08 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>19.3</b> |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: 7551-P1 (3)

Lab Sample ID: 410-50281-4

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 58.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                       | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                  | ND         |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| 1,2-Dichloroethane            | ND         |           | 7.5 | 0.90 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| <b>1,3,5-Trimethylbenzene</b> | <b>3.3</b> | <b>J</b>  | 7.5 | 0.75 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| <b>Toluene</b>                | <b>1.9</b> | <b>J</b>  | 7.5 | 0.90 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| <b>Xylenes, Total</b>         | <b>3.1</b> | <b>J</b>  | 15  | 2.1  | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| Methyl tertiary butyl ether   | ND         |           | 7.5 | 0.75 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 7551-P1 (3)

Lab Sample ID: 410-50281-4

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 58.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | 1.1    | J         | 7.5 | 0.75 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| Naphthalene            | ND     |           | 7.5 | 3.0  | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| 1,2,4-Trimethylbenzene | 5.8    | J         | 7.5 | 0.75 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| Isopropylbenzene       | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| 1,2-Dibromoethane      | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/08/21 12:27 | 08/10/21 13:36 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/08/21 12:27 | 08/10/21 13:36 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 08/08/21 12:27 | 08/10/21 13:36 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 99     |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Benzo[a]anthracene   | 330    |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Benzo[a]pyrene       | 260    |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Benzo[b]fluoranthene | 370    |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Benzo[g,h,i]perylene | 200    |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Chrysene             | 290    |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Fluorene             | 31     | J         | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Phenanthrene         | 450    |           | 56 | 13  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Pyrene               | 710    |           | 56 | 11  | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:29 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 18:29 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 18:29 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 42     |           | 2.1 | 0.86 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 15:12 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 41.1   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Pipe 87 (2)

Lab Sample ID: 410-50281-5

Date Collected: 08/06/21 11:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 100    | J         | 330 | 26  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| 1,2-Dichloroethane          | ND     |           | 330 | 40  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Toluene                     | 79     | J         | 330 | 40  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Xylenes, Total              | 120    | J         | 660 | 93  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Methyl tertiary butyl ether | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Benzene                     | ND     |           | 330 | 33  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Naphthalene                 | ND     |           | 330 | 130 | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 87 (2)

Lab Sample ID: 410-50281-5

Date Collected: 08/06/21 11:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 100       | J         | 330      | 33  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Isopropylbenzene             | ND        |           | 330      | 26  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| 1,2-Dibromoethane            | ND        |           | 330      | 26  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 82        |           | 54 - 135 |     |       |   | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| 4-Bromofluorobenzene (Surr)  | 76        |           | 50 - 131 |     |       |   | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Dibromofluoromethane (Surr)  | 78        |           | 50 - 141 |     |       |   | 08/08/21 12:23 | 08/11/21 15:28 | 50      |
| Toluene-d8 (Surr)            | 75        |           | 52 - 141 |     |       |   | 08/08/21 12:23 | 08/11/21 15:28 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 250       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Benzo[a]anthracene      | 570       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Benzo[a]pyrene          | 640       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Benzo[b]fluoranthene    | 730       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Benzo[g,h,i]perylene    | 590       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Chrysene                | 510       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Fluorene                | 180       |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Phenanthrene            | 260       |           | 20       | 4.8 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Pyrene                  | 1100      |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 18:52 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 18:52 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 720    |           | 1.4 | 0.55 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 15:16 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.6   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: 7551-P2 (3)

Lab Sample ID: 410-50281-6

Date Collected: 08/06/21 11:45

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 72.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 6.8 | 0.54 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.8 | 0.82 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Toluene                     | ND     |           | 6.8 | 0.82 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Xylenes, Total              | ND     |           | 14  | 1.9  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Benzene                     | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Naphthalene                 | ND     |           | 6.8 | 2.7  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Isopropylbenzene            | ND     |           | 6.8 | 0.54 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 7551-P2 (3)

Lab Sample ID: 410-50281-6

Date Collected: 08/06/21 11:45

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 72.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 6.8      | 0.54 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 54 - 135 |      |       |   | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 |      |       |   | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 16:38 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 16:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 2900      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Benzo[a]anthracene      | 4300      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Benzo[a]pyrene          | 3200      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Benzo[b]fluoranthene    | 3500      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Benzo[g,h,i]perylene    | 1800      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Chrysene                | 3800      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Fluorene                | 2200      |           | 23       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 19:15 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 19:15 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Phenanthrene            | 12000     |           | 110      | 27  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 08:54 | 5       |
| Pyrene                  | 7800      |           | 110      | 23  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 08:54 | 5       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/11/21 08:54 | 5       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/11/21 08:54 | 5       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/11/21 08:54 | 5       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 37     |           | 1.8 | 0.74 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:05 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.1   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Pipe 77 (2)

Lab Sample ID: 410-50281-7

Date Collected: 08/06/21 09:55

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 73.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 1400   |           | 360 | 29  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| 1,2-Dichloroethane     | ND     |           | 360 | 44  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| 1,3,5-Trimethylbenzene | 8100   |           | 360 | 36  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Toluene                | 100    | J         | 360 | 44  | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Xylenes, Total         | 3500   |           | 730 | 100 | ug/Kg | ✱ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 77 (2)

Lab Sample ID: 410-50281-7

Date Collected: 08/06/21 09:55

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 73.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Methyl tertiary butyl ether | ND     |           | 360 | 36  | ug/Kg | ☆ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Benzene                     | ND     |           | 360 | 36  | ug/Kg | ☆ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Naphthalene                 | 2000   |           | 360 | 150 | ug/Kg | ☆ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| 1,2,4-Trimethylbenzene      | 19000  |           | 360 | 36  | ug/Kg | ☆ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Isopropylbenzene            | 1800   |           | 360 | 29  | ug/Kg | ☆ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| 1,2-Dibromoethane           | ND     |           | 360 | 29  | ug/Kg | ☆ | 08/08/21 12:23 | 08/11/21 15:49 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 78        |           | 54 - 135 | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| 4-Bromofluorobenzene (Surr)  | 69        |           | 50 - 131 | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Dibromofluoromethane (Surr)  | 73        |           | 50 - 141 | 08/08/21 12:23 | 08/11/21 15:49 | 50      |
| Toluene-d8 (Surr)            | 69        |           | 52 - 141 | 08/08/21 12:23 | 08/11/21 15:49 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Benzo[a]anthracene   | 190    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Benzo[a]pyrene       | 270    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Benzo[b]fluoranthene | 200    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Benzo[g,h,i]perylene | 270    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Chrysene             | 370    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Fluorene             | 900    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Phenanthrene         | 870    |           | 22 | 5.4 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Pyrene               | 560    |           | 22 | 4.5 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 19:37 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 73        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| Nitrobenzene-d5 (Surr)  | 82        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 19:37 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 19:37 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 210    |           | 1.8 | 0.71 | mg/Kg | ☆ | 08/09/21 03:32 | 08/11/21 13:58 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.8   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 76 (2)

Lab Sample ID: 410-50281-8

Date Collected: 08/06/21 12:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 91.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 4.8 | 0.38 | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Toluene                     | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Xylenes, Total              | ND     |           | 9.5 | 1.3  | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Methyl tertiary butyl ether | 1.1 J  |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Benzene                     | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 76 (2)

Lab Sample ID: 410-50281-8

Date Collected: 08/06/21 12:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 91.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Naphthalene                  | ND        |           | 4.8      | 1.9  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 4.8      | 0.48 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Isopropylbenzene             | ND        |           | 4.8      | 0.38 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| 1,2-Dibromoethane            | ND        |           | 4.8      | 0.38 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 118       |           | 54 - 135 |      |       |   | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 |      |       |   | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 13:59 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 13:59 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 14        | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Benzo[a]anthracene      | 83        |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Benzo[a]pyrene          | 120       |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Benzo[b]fluoranthene    | 190       |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Benzo[g,h,i]perylene    | 150       |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Chrysene                | 140       |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Fluorene                | 5.6       | J         | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Phenanthrene            | 76        |           | 18       | 4.3 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Pyrene                  | 180       |           | 18       | 3.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 90        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 79        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 20:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 20:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 270    |           | 1.6 | 0.62 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:09 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.0    |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: 7551-P3 (3)

Lab Sample ID: 410-50281-9

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 71.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 6.3 | 0.50 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.3 | 0.75 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| 1,3,5-Trimethylbenzene      | 0.71   | J         | 6.3 | 0.63 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Toluene                     | 0.84   | J         | 6.3 | 0.75 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.8  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Benzene                     | 0.85   | J         | 6.3 | 0.63 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Naphthalene                 | ND     |           | 6.3 | 2.5  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| 1,2,4-Trimethylbenzene      | 0.77   | J         | 6.3 | 0.63 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 7551-P3 (3)

Lab Sample ID: 410-50281-9

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 71.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Isopropylbenzene             | ND        |           | 6.3      | 0.50 | ug/Kg | ☼ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| 1,2-Dibromoethane            | ND        |           | 6.3      | 0.50 | ug/Kg | ☼ | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 |      |       |   | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 |      |       |   | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Dibromofluoromethane (Surr)  | 96        |           | 50 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 14:22 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 14:22 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 65        |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Benzo[a]anthracene      | 220       |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Benzo[a]pyrene          | 200       |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Benzo[b]fluoranthene    | 230       |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Benzo[g,h,i]perylene    | 140       |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Chrysene                | 210       |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Fluorene                | 32        |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Phenanthrene            | 260       |           | 23       | 5.5 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Pyrene                  | 340       |           | 23       | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 93        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| Nitrobenzene-d5 (Surr)  | 78        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 20:23 | 1       |
| p-Terphenyl-d14 (Surr)  | 90        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 20:23 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 44     |           | 1.9 | 0.76 | mg/Kg | ☼ | 08/09/21 03:39 | 08/12/21 10:19 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.6   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-50281-10

Date Collected: 08/06/21 00:00

Matrix: Water

Date Received: 08/06/21 15:23

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:55 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/10/21 20:55 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:55 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:55 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:55 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/10/21 20:55 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/10/21 20:55 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:55 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:55 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:55 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:55 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Trip Blank

Date Collected: 08/06/21 00:00

Date Received: 08/06/21 15:23

## Lab Sample ID: 410-50281-10

Matrix: Water

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 80 - 120 |          | 08/10/21 20:55 | 1       |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 80 - 120 |          | 08/10/21 20:55 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 80 - 120 |          | 08/10/21 20:55 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 80 - 120 |          | 08/10/21 20:55 | 1       |

## Client Sample ID: Pipe 53 (2)

Date Collected: 08/05/21 14:15

Date Received: 08/06/21 15:23

## Lab Sample ID: 410-50281-11

Matrix: Solid

Percent Solids: 74.6

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 8.9 | 0.89 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Toluene                     | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.5  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Benzene                     | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Naphthalene                 | ND     | *3        | 8.9 | 3.6  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 8.9 | 0.89 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Isopropylbenzene            | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 14:44 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 72        |           | 50 - 131 | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/08/21 12:28 | 08/10/21 14:44 | 1       |
| Toluene-d8 (Surr)            | 110       |           | 52 - 141 | 08/08/21 12:28 | 08/10/21 14:44 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Benzo[a]anthracene   | 170    | J         | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Benzo[a]pyrene       | 220    |           | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Benzo[b]fluoranthene | 230    |           | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Benzo[g,h,i]perylene | 160    | J         | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Chrysene             | 170    | J         | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Fluorene             | ND     |           | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Phenanthrene         | 56     | J         | 220 | 54  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Pyrene               | 220    |           | 220 | 45  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:05 | 5       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 07:05 | 5       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 07:05 | 5       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 83     |           | 1.4 | 0.58 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:22 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 53 (2)

Date Collected: 08/05/21 14:15

Date Received: 08/06/21 15:23

## Lab Sample ID: 410-50281-11

Matrix: Solid

Percent Solids: 74.6

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.4   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

## Client Sample ID: 1044-P4 (3)

Date Collected: 08/05/21 14:30

Date Received: 08/06/21 15:23

## Lab Sample ID: 410-50281-12

Matrix: Solid

Percent Solids: 73.3

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 6.7      | 0.54 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| 1,2-Dichloroethane           | ND        |           | 6.7      | 0.80 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 6.7      | 0.67 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Toluene                      | ND        |           | 6.7      | 0.80 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Xylenes, Total               | ND        |           | 13       | 1.9  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 6.7      | 0.67 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Benzene                      | 1.3       | J         | 6.7      | 0.67 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Naphthalene                  | ND        |           | 6.7      | 2.7  | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 6.7      | 0.67 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Isopropylbenzene             | ND        |           | 6.7      | 0.54 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| 1,2-Dibromoethane            | ND        |           | 6.7      | 0.54 | ug/Kg | ✱ | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 |      |       |   | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 |      |       |   | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 17:00 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 |      |       |   | 08/08/21 12:28 | 08/10/21 17:00 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 64        |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Benzo[a]anthracene      | 120       |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Benzo[a]pyrene          | 95        |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Benzo[b]fluoranthene    | 120       |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Benzo[g,h,i]perylene    | 77        |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Chrysene                | 120       |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Fluorene                | 37        |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Phenanthrene            | 99        |           | 23       | 5.4 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Pyrene                  | 150       |           | 23       | 4.5 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 91        |           | 39 - 100 |     |       |   | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  |     |       |   | 08/10/21 09:43 | 08/12/21 05:12 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 |     |       |   | 08/10/21 09:43 | 08/12/21 05:12 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 2100   |           | 1.9 | 0.78 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:26 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.7   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 55 (2)

Lab Sample ID: 410-50281-13

Date Collected: 08/05/21 14:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 69.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 600  | 48  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| 1,2-Dichloroethane          | ND     |           | 600  | 72  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 600  | 60  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Toluene                     | ND     |           | 600  | 72  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Xylenes, Total              | ND     |           | 1200 | 170 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Methyl tertiary butyl ether | ND     |           | 600  | 60  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Benzene                     | ND     |           | 600  | 60  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Naphthalene                 | ND     |           | 600  | 240 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 600  | 60  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Isopropylbenzene            | ND     |           | 600  | 48  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| 1,2-Dibromoethane           | ND     |           | 600  | 48  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:10 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 93        |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| 4-Bromofluorobenzene (Surr)  | 75        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Dibromofluoromethane (Surr)  | 89        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 16:10 | 50      |
| Toluene-d8 (Surr)            | 83        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 16:10 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 110    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Benzo[a]anthracene   | 510    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Benzo[a]pyrene       | 460    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Benzo[b]fluoranthene | 580    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Benzo[g,h,i]perylene | 330    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Chrysene             | 580    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Fluorene             | 92     |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Phenanthrene         | 1100   |           | 23 | 5.6 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Pyrene               | 930    |           | 23 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:35 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 05:35 | 1       |
| p-Terphenyl-d14 (Surr)  | 77        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 05:35 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 750    | F2        | 1.8 | 0.73 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 09:44 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 30.1   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Pipe 78 (2)

Lab Sample ID: 410-50281-14

Date Collected: 08/06/21 09:05

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 59.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | 140    | J         | 550 | 44  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| 1,2-Dichloroethane | ND     |           | 550 | 65  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 78 (2)

Lab Sample ID: 410-50281-14

Date Collected: 08/06/21 09:05

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 59.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 1100      |           | 550      | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Toluene                      | 110       | J         | 550      | 65  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Xylenes, Total               | 470       | J         | 1100     | 150 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 550      | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Benzene                      | ND        |           | 550      | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Naphthalene                  | 290       | J         | 550      | 220 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| 1,2,4-Trimethylbenzene       | 2200      |           | 550      | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Isopropylbenzene             | 180       | J         | 550      | 44  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| 1,2-Dibromoethane            | ND        |           | 550      | 44  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 87        |           | 54 - 135 |     |       |   | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| 4-Bromofluorobenzene (Surr)  | 77        |           | 50 - 131 |     |       |   | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Dibromofluoromethane (Surr)  | 82        |           | 50 - 141 |     |       |   | 08/08/21 11:15 | 08/11/21 16:31 | 50      |
| Toluene-d8 (Surr)            | 78        |           | 52 - 141 |     |       |   | 08/08/21 11:15 | 08/11/21 16:31 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 31        |           | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Benzo[a]anthracene      | 22        | J         | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Benzo[a]pyrene          | 21        | J         | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Benzo[b]fluoranthene    | 40        |           | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Benzo[g,h,i]perylene    | 56        |           | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Chrysene                | 30        |           | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Fluorene                | ND        |           | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Phenanthrene            | 64        |           | 28       | 6.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Pyrene                  | 54        |           | 28       | 5.5 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 91        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| Nitrobenzene-d5 (Surr)  | 81        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 20:45 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 20:45 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 94     |           | 1.9 | 0.74 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:29 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 40.1   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Pipe 79 (2)

Lab Sample ID: 410-50281-15

Date Collected: 08/06/21 09:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 90.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 1700   |           | 250 | 20  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| 1,2-Dichloroethane     | ND     |           | 250 | 30  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| 1,3,5-Trimethylbenzene | 39     | J         | 250 | 25  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| Toluene                | ND     |           | 250 | 30  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 79 (2)

Lab Sample ID: 410-50281-15

Date Collected: 08/06/21 09:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 90.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>       | <b>110</b>  | <b>J</b>  | 510 | 71  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| Methyl tertiary butyl ether | ND          |           | 250 | 25  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| <b>Benzene</b>              | <b>26</b>   | <b>J</b>  | 250 | 25  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| <b>Naphthalene</b>          | <b>820</b>  |           | 250 | 100 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| <b>Isopropylbenzene</b>     | <b>1000</b> |           | 250 | 20  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| 1,2-Dibromoethane           | ND          |           | 250 | 20  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 16:52 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 86        |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| Dibromofluoromethane (Surr)  | 83        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 16:52 | 50      |
| Toluene-d8 (Surr)            | 83        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 16:52 | 50      |

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 27000     |           | 2500     | 250 | ug/Kg | ☼ | 08/08/21 11:15 | 08/12/21 12:03 | 500     |
|                              |           |           |          |     |       |   |                |                |         |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 54 - 135 |     |       |   | 08/08/21 11:15 | 08/12/21 12:03 | 500     |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 |     |       |   | 08/08/21 11:15 | 08/12/21 12:03 | 500     |
| Dibromofluoromethane (Surr)  | 82        |           | 50 - 141 |     |       |   | 08/08/21 11:15 | 08/12/21 12:03 | 500     |
| Toluene-d8 (Surr)            | 82        |           | 52 - 141 |     |       |   | 08/08/21 11:15 | 08/12/21 12:03 | 500     |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>35</b>  |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>62</b>  |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>47</b>  |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>44</b>  |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>41</b>  |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Chrysene</b>             | <b>80</b>  |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Fluorene</b>             | <b>130</b> |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Phenanthrene</b>         | <b>190</b> |           | 18 | 4.4 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| <b>Pyrene</b>               | <b>100</b> |           | 18 | 3.7 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 21:08 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 87        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 77        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 21:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 21:08 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>14</b> |           | 1.3 | 0.51 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:33 | 1       |

## General Chemistry

| Analyte                 | Result     | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>9.6</b> |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 7551-P7 (3)

Lab Sample ID: 410-50281-16

Date Collected: 08/06/21 09:45

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 42     | J         | 340 | 27  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| 1,2-Dichloroethane          | ND     |           | 340 | 41  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| 1,3,5-Trimethylbenzene      | 180    | J         | 340 | 34  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Toluene                     | 220    | J         | 340 | 41  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Xylenes, Total              | 300    | J         | 680 | 95  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Methyl tertiary butyl ether | ND     |           | 340 | 34  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Benzene                     | ND     |           | 340 | 34  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Naphthalene                 | ND     |           | 340 | 140 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| 1,2,4-Trimethylbenzene      | 420    |           | 340 | 34  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Isopropylbenzene            | ND     |           | 340 | 27  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| 1,2-Dibromoethane           | ND     |           | 340 | 27  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 17:12 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 73        |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| 4-Bromofluorobenzene (Surr)  | 78        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Dibromofluoromethane (Surr)  | 65        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 17:12 | 50      |
| Toluene-d8 (Surr)            | 68        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 17:12 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 18     | J         | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Benzo[a]anthracene   | 26     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Benzo[a]pyrene       | 39     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Benzo[b]fluoranthene | 48     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Benzo[g,h,i]perylene | 95     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Chrysene             | 34     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Fluorene             | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Phenanthrene         | 35     |           | 20 | 4.8 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Pyrene               | 44     |           | 20 | 4.0 | ug/Kg | ☼ | 08/10/21 09:37 | 08/10/21 21:31 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 90        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| Nitrobenzene-d5 (Surr)  | 79        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 21:31 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 21:31 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 18     |           | 1.6 | 0.65 | mg/Kg | ☼ | 08/09/21 03:39 | 08/12/21 10:37 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 17.0   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: Pipe 82 (2)

Lab Sample ID: 410-50281-17

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 70.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | 1.0    | J         | 7.3 | 0.58 | ug/Kg | ☼ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| 1,2-Dichloroethane | ND     |           | 7.3 | 0.87 | ug/Kg | ☼ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 82 (2)

Lab Sample ID: 410-50281-17

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 70.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 0.73      | J         | 7.3      | 0.73 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Toluene                      | 6.8       | J         | 7.3      | 0.87 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Xylenes, Total               | 5.9       | J         | 15       | 2.0  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 7.3      | 0.73 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Benzene                      | 6.2       | J         | 7.3      | 0.73 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Naphthalene                  | ND        |           | 7.3      | 2.9  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| 1,2,4-Trimethylbenzene       | 1.2       | J         | 7.3      | 0.73 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Isopropylbenzene             | ND        |           | 7.3      | 0.58 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| 1,2-Dibromoethane            | ND        |           | 7.3      | 0.58 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 121       |           | 54 - 135 |      |       |   | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 |      |       |   | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 08/08/21 11:15 | 08/10/21 17:46 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 |      |       |   | 08/08/21 11:15 | 08/10/21 17:46 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 110       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Benzo[a]anthracene      | 360       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Benzo[a]pyrene          | 390       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Benzo[b]fluoranthene    | 510       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Benzo[g,h,i]perylene    | 390       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Chrysene                | 390       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Fluorene                | 32        |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Phenanthrene            | 450       |           | 24       | 5.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Pyrene                  | 570       |           | 24       | 4.7 | ug/Kg | ✱ | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 |     |       |   | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  |     |       |   | 08/11/21 17:48 | 08/12/21 22:25 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 |     |       |   | 08/11/21 17:48 | 08/12/21 22:25 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 200    |           | 1.9 | 0.78 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:40 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 29.9   |           | 1.0 | 1.0 | %    |   |          | 08/07/21 00:30 | 1       |

Client Sample ID: 7551-P6 (3)

Lab Sample ID: 410-50281-18

Date Collected: 08/06/21 10:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 66.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 4100   |           | 460 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| 1,2-Dichloroethane     | ND     |           | 460 | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| 1,3,5-Trimethylbenzene | 15000  |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| Toluene                | 8400   |           | 460 | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 7551-P6 (3)

Lab Sample ID: 410-50281-18

Date Collected: 08/06/21 10:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 66.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result       | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>       | <b>31000</b> |           | 920 | 130 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| Methyl tertiary butyl ether | ND           |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| <b>Benzene</b>              | <b>720</b>   |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| <b>Naphthalene</b>          | <b>1100</b>  |           | 460 | 180 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| <b>Isopropylbenzene</b>     | <b>2000</b>  |           | 460 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| 1,2-Dibromoethane           | ND           |           | 460 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:33 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 85        |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| Dibromofluoromethane (Surr)  | 81        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 17:33 | 50      |
| Toluene-d8 (Surr)            | 85        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 17:33 | 50      |

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 51000     |           | 4600     | 460 | ug/Kg | ☼ | 08/08/21 11:15 | 08/12/21 12:24 | 500     |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 79        |           | 54 - 135 |     |       |   | 08/08/21 11:15 | 08/12/21 12:24 | 500     |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 |     |       |   | 08/08/21 11:15 | 08/12/21 12:24 | 500     |
| Dibromofluoromethane (Surr)  | 77        |           | 50 - 141 |     |       |   | 08/08/21 11:15 | 08/12/21 12:24 | 500     |
| Toluene-d8 (Surr)            | 79        |           | 52 - 141 |     |       |   | 08/08/21 11:15 | 08/12/21 12:24 | 500     |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>21</b> | <b>J</b>  | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>26</b> |           | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>17</b> | <b>J</b>  | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>29</b> |           | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>43</b> |           | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Chrysene</b>             | <b>63</b> |           | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Fluorene</b>             | <b>31</b> |           | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Phenanthrene</b>         | <b>74</b> |           | 25 | 6.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| <b>Pyrene</b>               | <b>36</b> |           | 25 | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:16 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 22:16 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 22:16 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>21</b> |           | 2.3 | 0.90 | mg/Kg | ✱ | 08/09/21 03:39 | 08/12/21 10:44 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>33.7</b> |           | 1.0 | 1.0 | %    | - |          | 08/07/21 00:30 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 81 (2)

Lab Sample ID: 410-50281-19

Date Collected: 08/06/21 10:25

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 1.4    | J         | 5.6 | 0.44 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| 1,2-Dichloroethane          | 1.3    | J         | 5.6 | 0.67 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Toluene                     | 31     |           | 5.6 | 0.67 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Xylenes, Total              | 7.3    | J         | 11  | 1.6  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Benzene                     | 12     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Naphthalene                 | ND     |           | 5.6 | 2.2  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| 1,2,4-Trimethylbenzene      | 1.1    | J         | 5.6 | 0.56 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Isopropylbenzene            | ND     |           | 5.6 | 0.44 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.6 | 0.44 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 14:10 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 115       |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 14:10 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 14:10 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 48     |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Benzo[a]anthracene   | 120    |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Benzo[a]pyrene       | 330    |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Benzo[b]fluoranthene | 370    |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Benzo[g,h,i]perylene | 430    |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Chrysene             | 130    |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Fluorene             | 12     | J         | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Phenanthrene         | 97     |           | 20 | 4.9 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Pyrene               | 140    |           | 20 | 4.1 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 12:18 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 12:18 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 12:18 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 500    |           | 1.4 | 0.56 | mg/Kg | ☼ | 08/09/21 03:32 | 08/11/21 14:02 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 19.8   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 83 (2)

Lab Sample ID: 410-50281-20

Date Collected: 08/06/21 10:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 82.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 5.4 | 0.43 | ug/Kg | ☼ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| 1,2-Dichloroethane | ND     |           | 5.4 | 0.65 | ug/Kg | ☼ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 83 (2)

Lab Sample ID: 410-50281-20

Date Collected: 08/06/21 10:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 82.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                       | Result        | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|---------------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene        | ND            |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| <b>Toluene</b>                | <b>5.5</b>    |           | 5.4      | 0.65 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| <b>Xylenes, Total</b>         | <b>2.8 J</b>  |           | 11       | 1.5  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| Methyl tertiary butyl ether   | ND            |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| <b>Benzene</b>                | <b>3.8 J</b>  |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| Naphthalene                   | ND            |           | 5.4      | 2.2  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| <b>1,2,4-Trimethylbenzene</b> | <b>0.58 J</b> |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| Isopropylbenzene              | ND            |           | 5.4      | 0.43 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| 1,2-Dibromoethane             | ND            |           | 5.4      | 0.43 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| Surrogate                     | %Recovery     | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr)  | 119           |           | 54 - 135 |      |       |   | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| 4-Bromofluorobenzene (Surr)   | 83            |           | 50 - 131 |      |       |   | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| Dibromofluoromethane (Surr)   | 99            |           | 50 - 141 |      |       |   | 08/08/21 11:15 | 08/10/21 15:30 | 1       |
| Toluene-d8 (Surr)             | 93            |           | 52 - 141 |      |       |   | 08/08/21 11:15 | 08/10/21 15:30 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result      | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>55</b>   |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>350</b>  |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>330</b>  |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>490</b>  |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>300</b>  |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Chrysene</b>             | <b>370</b>  |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Fluorene</b>             | <b>15 J</b> |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Phenanthrene</b>         | <b>190</b>  |           | 20       | 4.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| <b>Pyrene</b>               | <b>560</b>  |           | 20       | 4.0 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| Surrogate                   | %Recovery   | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 89          |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| Nitrobenzene-d5 (Surr)      | 75          |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 12:40 | 1       |
| p-Terphenyl-d14 (Surr)      | 86          |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 12:40 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>76</b> |           | 1.2 | 0.50 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:06 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>17.6</b> |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 80 (2)

Lab Sample ID: 410-50281-21

Date Collected: 08/06/21 10:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 87.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                       | Result       | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Ethylbenzene</b>           | <b>3.8 J</b> |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| 1,2-Dichloroethane            | ND           |           | 5.9 | 0.71 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| <b>1,3,5-Trimethylbenzene</b> | <b>1.4 J</b> |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| <b>Toluene</b>                | <b>11</b>    |           | 5.9 | 0.71 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 80 (2)

Lab Sample ID: 410-50281-21

Date Collected: 08/06/21 10:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 87.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                       | Result       | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>         | <b>12</b>    |           | 12  | 1.7  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| Methyl tertiary butyl ether   | ND           |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| <b>Benzene</b>                | <b>3.8 J</b> |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| Naphthalene                   | ND           |           | 5.9 | 2.4  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| <b>1,2,4-Trimethylbenzene</b> | <b>5.7 J</b> |           | 5.9 | 0.59 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| Isopropylbenzene              | ND           |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| 1,2-Dibromoethane             | ND           |           | 5.9 | 0.47 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:56 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| Dibromofluoromethane (Surr)  | 94        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 14:56 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 14:56 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>33</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>57</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>94</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>100</b> |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>110</b> |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Chrysene</b>             | <b>65</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Fluorene</b>             | <b>21</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Phenanthrene</b>         | <b>110</b> |           | 19 | 4.6 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| <b>Pyrene</b>               | <b>120</b> |           | 19 | 3.8 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:03 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 86        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 13:03 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 13:03 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>30</b> |           | 1.4 | 0.56 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:10 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>12.9</b> |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 50 (2)

Lab Sample ID: 410-50281-22

Date Collected: 08/05/21 12:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 79.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.7 | 0.61 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.7 | 0.92 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Toluene                     | ND     |           | 7.7 | 0.92 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.2  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 50 (2)

Lab Sample ID: 410-50281-22

Date Collected: 08/05/21 12:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 79.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Naphthalene            | ND     |           | 7.7 | 3.1  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 7.7 | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Isopropylbenzene       | ND     |           | 7.7 | 0.61 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| 1,2-Dibromoethane      | ND     |           | 7.7 | 0.61 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 15:52 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 122       |           | 54 - 135 | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/08/21 11:15 | 08/10/21 15:52 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 | 08/08/21 11:15 | 08/10/21 15:52 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Benzo[a]anthracene   | 9.8    | J         | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Benzo[a]pyrene       | 6.2    | J         | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Benzo[b]fluoranthene | 9.9    | J         | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Benzo[g,h,i]perylene | 11     | J         | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Chrysene             | 9.7    | J         | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Fluorene             | ND     |           | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Phenanthrene         | 10     | J         | 21 | 5.0 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Pyrene               | 13     | J         | 21 | 4.1 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 05:57 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 05:57 | 1       |
| p-Terphenyl-d14 (Surr)  | 74        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 05:57 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 320    |           | 1.7 | 0.69 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:20 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.2   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 49 (2)

Lab Sample ID: 410-50281-23

Date Collected: 08/05/21 12:55

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.0 | 0.84 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Toluene                     | ND     |           | 7.0 | 0.84 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Xylenes, Total              | ND     |           | 14  | 1.9  | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Benzene                     | 1.1    | J         | 7.0 | 0.70 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Naphthalene                 | ND     |           | 7.0 | 2.8  | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 49 (2)

Lab Sample ID: 410-50281-23

Date Collected: 08/05/21 12:55

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Isopropylbenzene       | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| 1,2-Dibromoethane      | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/08/21 12:04 | 08/10/21 18:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 78        |           | 50 - 131 | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/08/21 12:04 | 08/10/21 18:08 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/08/21 12:04 | 08/10/21 18:08 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 13     | J         | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Benzo[a]anthracene   | 19     | J         | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Benzo[a]pyrene       | 20     |           | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Benzo[b]fluoranthene | 27     |           | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Benzo[g,h,i]perylene | 22     |           | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Chrysene             | 25     |           | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Fluorene             | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Phenanthrene         | 52     |           | 20 | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Pyrene               | 50     |           | 20 | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:20 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 91        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 06:20 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 06:20 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 78     |           | 1.4 | 0.55 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:23 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.1   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 45 (2)

Lab Sample ID: 410-50281-24

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 84.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 470 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| 1,2-Dichloroethane          | ND     |           | 470 | 56  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 470 | 47  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Toluene                     | ND     |           | 470 | 56  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Xylenes, Total              | ND     |           | 940 | 130 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Methyl tertiary butyl ether | ND     |           | 470 | 47  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Benzene                     | ND     |           | 470 | 47  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Naphthalene                 | ND     |           | 470 | 190 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| 1,2,4-Trimethylbenzene      | 75     | J         | 470 | 47  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Isopropylbenzene            | ND     |           | 470 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 45 (2)

Lab Sample ID: 410-50281-24

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 84.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 470      | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 79        |           | 54 - 135 |     |       |   | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| 4-Bromofluorobenzene (Surr)  | 66        |           | 50 - 131 |     |       |   | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Dibromofluoromethane (Surr)  | 76        |           | 50 - 141 |     |       |   | 08/08/21 11:15 | 08/11/21 17:54 | 50      |
| Toluene-d8 (Surr)            | 72        |           | 52 - 141 |     |       |   | 08/08/21 11:15 | 08/11/21 17:54 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 22        |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Benzo[a]anthracene      | 6.7 J     |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Benzo[a]pyrene          | 6.7 J     |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Benzo[b]fluoranthene    | 14 J      |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Benzo[g,h,i]perylene    | 9.3 J     |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Chrysene                | 11 J      |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Fluorene                | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Phenanthrene            | 32        |           | 20       | 4.7 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Pyrene                  | 15 J      |           | 20       | 3.9 | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 |     |       |   | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  |     |       |   | 08/10/21 09:43 | 08/12/21 06:43 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 |     |       |   | 08/10/21 09:43 | 08/12/21 06:43 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 330    |           | 1.7 | 0.68 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:26 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.7   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 47 (2)

Lab Sample ID: 410-50281-25

Date Collected: 08/05/21 13:05

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 86.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 510  | 41  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| 1,2-Dichloroethane          | ND     |           | 510  | 61  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 510  | 51  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Toluene                     | ND     |           | 510  | 61  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Xylenes, Total              | ND     |           | 1000 | 140 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Methyl tertiary butyl ether | ND     |           | 510  | 51  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Benzene                     | ND     |           | 510  | 51  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Naphthalene                 | ND     |           | 510  | 200 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 510  | 51  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Isopropylbenzene            | ND     |           | 510  | 41  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| 1,2-Dibromoethane           | ND     |           | 510  | 41  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:15 | 50      |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 47 (2)

Lab Sample ID: 410-50281-25

Date Collected: 08/05/21 13:05

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 86.2

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 82        |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| 4-Bromofluorobenzene (Surr)  | 68        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Dibromofluoromethane (Surr)  | 79        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 18:15 | 50      |
| Toluene-d8 (Surr)            | 72        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 18:15 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Benzo[a]anthracene   | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Benzo[a]pyrene       | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Benzo[b]fluoranthene | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Benzo[g,h,i]perylene | 80     | J         | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Chrysene             | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Fluorene             | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Phenanthrene         | ND     |           | 190 | 46  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Pyrene               | ND     |           | 190 | 38  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:27 | 10      |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 68        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| Nitrobenzene-d5 (Surr)  | 59        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 07:27 | 10      |
| p-Terphenyl-d14 (Surr)  | 66        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 07:27 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 69     |           | 1.5 | 0.59 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:33 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.8   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 46 (2)

Lab Sample ID: 410-50281-26

Date Collected: 08/05/21 13:10

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 81.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 460 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| 1,2-Dichloroethane          | ND     |           | 460 | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Toluene                     | ND     |           | 460 | 55  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Xylenes, Total              | ND     |           | 920 | 130 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Methyl tertiary butyl ether | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Benzene                     | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Naphthalene                 | ND     |           | 460 | 180 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Isopropylbenzene            | ND     |           | 460 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| 1,2-Dibromoethane           | ND     |           | 460 | 37  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 18:36 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 84        |           | 54 - 135 | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| 4-Bromofluorobenzene (Surr)  | 72        |           | 50 - 131 | 08/08/21 11:15 | 08/11/21 18:36 | 50      |
| Dibromofluoromethane (Surr)  | 82        |           | 50 - 141 | 08/08/21 11:15 | 08/11/21 18:36 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 46 (2)

Lab Sample ID: 410-50281-26

Date Collected: 08/05/21 13:10

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 81.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 78        |           | 52 - 141 | 08/08/21 11:15 | 08/11/21 18:36 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 130    | J         | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Benzo[a]anthracene   | 370    | J         | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Benzo[a]pyrene       | 380    | J         | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Benzo[b]fluoranthene | 440    |           | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Benzo[g,h,i]perylene | 340    | J         | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Chrysene             | 460    |           | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Fluorene             | ND     |           | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Phenanthrene         | 560    |           | 400 | 97  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Pyrene               | 700    |           | 400 | 81  | ug/Kg | ✱ | 08/10/21 09:43 | 08/12/21 07:50 | 10      |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 69        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| Nitrobenzene-d5 (Surr)  | 49        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 07:50 | 10      |
| p-Terphenyl-d14 (Surr)  | 75        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 07:50 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 600    |           | 1.8 | 0.70 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:37 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 18.6   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 48 (2)

Lab Sample ID: 410-50281-27

Date Collected: 08/05/21 13:20

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 85.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 0.65   | J         | 7.9 | 0.64 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.9 | 0.95 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Toluene                     | 2.3    | J         | 7.9 | 0.95 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Xylenes, Total              | 3.5    | J         | 16  | 2.2  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Benzene                     | 0.93   | J         | 7.9 | 0.79 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Naphthalene                 | ND     |           | 7.9 | 3.2  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| 1,2,4-Trimethylbenzene      | 0.87   | J         | 7.9 | 0.79 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Isopropylbenzene            | ND     |           | 7.9 | 0.64 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.9 | 0.64 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:31 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 115       |           | 54 - 135 | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 80        |           | 50 - 131 | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/08/21 11:15 | 08/10/21 18:31 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/08/21 11:15 | 08/10/21 18:31 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 48 (2)

Lab Sample ID: 410-50281-27

Date Collected: 08/05/21 13:20

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 85.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Benzo[a]anthracene      | 19        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Benzo[a]pyrene          | 15        | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Benzo[b]fluoranthene    | 14        | J         | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Benzo[g,h,i]perylene    | 27        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Chrysene                | 45        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Fluorene                | ND        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Phenanthrene            | 79        |           | 19       | 4.6 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Pyrene                  | 74        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 72        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| Nitrobenzene-d5 (Surr)  | 62        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 22:38 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 22:38 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 15     |           | 1.3 | 0.54 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:30 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.7   |           | 1.0 | 1.0 | %    | — |          | 08/06/21 22:34 | 1       |

Client Sample ID: 1043-P5 (3)

Lab Sample ID: 410-50281-28

Date Collected: 08/05/21 13:25

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 79.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 9.5      | 0.76 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| 1,2-Dichloroethane           | ND        |           | 9.5      | 1.1  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 9.5      | 0.95 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Toluene                      | ND        |           | 9.5      | 1.1  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Xylenes, Total               | ND        |           | 19       | 2.7  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 9.5      | 0.95 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Benzene                      | 1.3       | J         | 9.5      | 0.95 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Naphthalene                  | ND        |           | 9.5      | 3.8  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 9.5      | 0.95 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Isopropylbenzene             | ND        |           | 9.5      | 0.76 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| 1,2-Dibromoethane            | ND        |           | 9.5      | 0.76 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 |      |       |   | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 |      |       |   | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |      |       |   | 08/08/21 11:15 | 08/11/21 14:33 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 |      |       |   | 08/08/21 11:15 | 08/11/21 14:33 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene         | 110    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Benzo[a]anthracene | 290    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 1043-P5 (3)

Lab Sample ID: 410-50281-28

Date Collected: 08/05/21 13:25

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 79.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene       | 200    |           | 21 | 4.2 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Benzo[b]fluoranthene | 300    |           | 21 | 4.2 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Benzo[g,h,i]perylene | 150    |           | 21 | 4.2 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Chrysene             | 280    |           | 21 | 4.2 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Fluorene             | 43     |           | 21 | 4.2 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Phenanthrene         | 470    |           | 21 | 5.0 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Pyrene               | 470    |           | 21 | 4.2 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:01 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 23:01 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 23:01 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 560    | F2        | 1.5 | 0.59 | mg/Kg | ☆ | 08/09/21 03:32 | 08/11/21 13:38 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.9   |           | 1.0 | 1.0 | %    | - |          | 08/06/21 22:34 | 1       |

Client Sample ID: 1043-P4 (3)

Lab Sample ID: 410-50281-29

Date Collected: 08/05/21 13:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 77.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.7 | 0.70 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.7 | 1.0  | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.7 | 0.87 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Toluene                     | ND     |           | 8.7 | 1.0  | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Xylenes, Total              | ND     |           | 17  | 2.4  | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.7 | 0.87 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Benzene                     | 2.6    | J         | 8.7 | 0.87 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Naphthalene                 | ND     |           | 8.7 | 3.5  | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.7 | 0.87 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Isopropylbenzene            | ND     |           | 8.7 | 0.70 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.7 | 0.70 | ug/Kg | ☆ | 08/08/21 11:15 | 08/10/21 19:39 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 80        |           | 50 - 131 | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/08/21 11:15 | 08/10/21 19:39 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/08/21 11:15 | 08/10/21 19:39 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 420    |           | 21 | 4.3 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Benzo[a]anthracene   | 3100   |           | 21 | 4.3 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Benzo[a]pyrene       | 2700   |           | 21 | 4.3 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Benzo[b]fluoranthene | 2800   |           | 21 | 4.3 | ug/Kg | ☆ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 1043-P4 (3)

Lab Sample ID: 410-50281-29

Date Collected: 08/05/21 13:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 77.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene | 1700   |           | 21 | 4.3 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Chrysene             | 2600   |           | 21 | 4.3 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Fluorene             | 54     |           | 21 | 4.3 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Phenanthrene         | 820    |           | 21 | 5.1 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Pyrene               | 4100   |           | 21 | 4.3 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:23 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  | 08/10/21 09:37 | 08/10/21 23:23 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/10/21 09:37 | 08/10/21 23:23 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 880    |           | 1.5 | 0.61 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 23.0   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: 1043-P1 (3)

Lab Sample ID: 410-50281-30

Date Collected: 08/05/21 13:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 78.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.2 | 0.66 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.2 | 0.98 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Toluene                     | ND     |           | 8.2 | 0.98 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.3  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Benzene                     | 1.6    | J         | 8.2 | 0.82 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Naphthalene                 | ND     |           | 8.2 | 3.3  | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Isopropylbenzene            | ND     |           | 8.2 | 0.66 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.2 | 0.66 | ug/Kg | ✱ | 08/08/21 11:15 | 08/10/21 18:54 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/08/21 11:15 | 08/10/21 18:54 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/08/21 11:15 | 08/10/21 18:54 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 66     |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Benzo[a]anthracene   | 210    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Benzo[a]pyrene       | 160    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Benzo[b]fluoranthene | 190    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Benzo[g,h,i]perylene | 110    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Chrysene             | 200    |           | 21 | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: 1043-P1 (3)

Lab Sample ID: 410-50281-30

Date Collected: 08/05/21 13:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 78.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Fluorene                | 28        |           | 21       | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Phenanthrene            | 280       |           | 21       | 5.0 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Pyrene                  | 350       |           | 21       | 4.2 | ug/Kg | ✱ | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 66        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| Nitrobenzene-d5 (Surr)  | 56        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/10/21 23:46 | 1       |
| p-Terphenyl-d14 (Surr)  | 74        |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/10/21 23:46 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 87     |           | 1.4 | 0.57 | mg/Kg | ✱ | 08/09/21 03:32 | 08/11/21 14:44 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.2   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 51 (2)

Lab Sample ID: 410-50281-31

Date Collected: 08/05/21 13:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 9.7      | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| 1,2-Dichloroethane           | ND        |           | 9.7      | 1.2  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| 1,3,5-Trimethylbenzene       | ND        | *3        | 9.7      | 0.97 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Toluene                      | ND        |           | 9.7      | 1.2  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Xylenes, Total               | ND        |           | 19       | 2.7  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 9.7      | 0.97 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Benzene                      | 1.5       | J         | 9.7      | 0.97 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Naphthalene                  | ND        | *3        | 9.7      | 3.9  | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| 1,2,4-Trimethylbenzene       | ND        | *3        | 9.7      | 0.97 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Isopropylbenzene             | ND        |           | 9.7      | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| 1,2-Dibromoethane            | ND        |           | 9.7      | 0.77 | ug/Kg | ✱ | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 121       |           | 54 - 135 |      |       |   | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 67        |           | 50 - 131 |      |       |   | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |      |       |   | 08/08/21 11:15 | 08/11/21 15:18 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 52 - 141 |      |       |   | 08/08/21 11:15 | 08/11/21 15:18 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 80     | J         | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Benzo[a]anthracene   | ND     |           | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Benzo[a]pyrene       | ND     |           | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Benzo[b]fluoranthene | ND     |           | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Benzo[g,h,i]perylene | 710    |           | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Chrysene             | ND     |           | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Fluorene             | ND     |           | 100 | 21  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Phenanthrene         | 270    |           | 100 | 25  | ug/Kg | ✱ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 51 (2)

Lab Sample ID: 410-50281-31

Date Collected: 08/05/21 13:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | 100       |           | 100      | 21  | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 |     |       |   | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 76        |           | 32 - 97  |     |       |   | 08/10/21 09:37 | 08/11/21 00:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 101       |           | 45 - 108 |     |       |   | 08/10/21 09:37 | 08/11/21 00:08 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 460    |           | 1.6 | 0.64 | mg/Kg | ☼ | 08/09/21 03:32 | 08/11/21 14:51 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.0   |           | 1.0 | 1.0 | %    |   |          | 08/06/21 22:34 | 1       |

Client Sample ID: Pipe 52 (2)

Lab Sample ID: 410-50281-32

Date Collected: 08/05/21 14:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 72.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 7.5      | 0.60 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| 1,2-Dichloroethane           | ND        |           | 7.5      | 0.90 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 7.5      | 0.75 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Toluene                      | ND        |           | 7.5      | 0.90 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Xylenes, Total               | ND        |           | 15       | 2.1  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 7.5      | 0.75 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Benzene                      | ND        |           | 7.5      | 0.75 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Naphthalene                  | ND        |           | 7.5      | 3.0  | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 7.5      | 0.75 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Isopropylbenzene             | ND        |           | 7.5      | 0.60 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| 1,2-Dibromoethane            | ND        |           | 7.5      | 0.60 | ug/Kg | ☼ | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 |      |       |   | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 |      |       |   | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 08/08/21 11:15 | 08/11/21 15:41 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 |      |       |   | 08/08/21 11:15 | 08/11/21 15:41 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 18     | J         | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Benzo[a]anthracene   | 28     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Benzo[a]pyrene       | ND     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Benzo[b]fluoranthene | 34     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Chrysene             | 40     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Fluorene             | ND     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Phenanthrene         | 64     |           | 23 | 5.5 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Pyrene               | 39     |           | 23 | 4.6 | ug/Kg | ☼ | 08/10/21 09:37 | 08/11/21 00:31 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: Pipe 52 (2)**

**Lab Sample ID: 410-50281-32**

**Date Collected: 08/05/21 14:00**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 72.0**

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 70        |           | 39 - 100 | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| Nitrobenzene-d5 (Surr)  | 58        |           | 32 - 97  | 08/10/21 09:37 | 08/11/21 00:31 | 1       |
| p-Terphenyl-d14 (Surr)  | 68        |           | 45 - 108 | 08/10/21 09:37 | 08/11/21 00:31 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 110    |           | 1.4 | 0.57 | mg/Kg | ☼ | 08/09/21 03:32 | 08/11/21 14:47 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.0   |           | 1.0 | 1.0 | %    | — |          | 08/06/21 22:34 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-50281-1       | DUP-3                  | 113  | 88              | 97               | 97              |
| 410-50281-2       | 7551-P5 (3)            | 121  | 83              | 101              | 91              |
| 410-50281-3       | Pipe 75 (2)            | 80   | 73              | 75               | 71              |
| 410-50281-4       | 7551-P1 (3)            | 111  | 89              | 99               | 93              |
| 410-50281-5       | Pipe 87 (2)            | 82   | 76              | 78               | 75              |
| 410-50281-6       | 7551-P2 (3)            | 106  | 83              | 102              | 95              |
| 410-50281-7       | Pipe 77 (2)            | 78   | 69              | 73               | 69              |
| 410-50281-8       | Pipe 76 (2)            | 118  | 88              | 103              | 93              |
| 410-50281-9       | 7551-P3 (3)            | 114  | 81              | 96               | 93              |
| 410-50281-11      | Pipe 53 (2)            | 112  | 72              | 103              | 110             |
| 410-50281-12      | 1044-P4 (3)            | 111  | 81              | 103              | 97              |
| 410-50281-13      | Pipe 55 (2)            | 93   | 75              | 89               | 83              |
| 410-50281-14      | Pipe 78 (2)            | 87   | 77              | 82               | 78              |
| 410-50281-15      | Pipe 79 (2)            | 86   | 84              | 83               | 83              |
| 410-50281-15 - DL | Pipe 79 (2)            | 91   | 86              | 82               | 82              |
| 410-50281-16      | 7551-P7 (3)            | 73   | 78              | 65               | 68              |
| 410-50281-17      | Pipe 82 (2)            | 121  | 95              | 103              | 92              |
| 410-50281-18      | 7551-P6 (3)            | 85   | 91              | 81               | 85              |
| 410-50281-18 - DL | 7551-P6 (3)            | 79   | 82              | 77               | 79              |
| 410-50281-19      | Pipe 81 (2)            | 115  | 81              | 100              | 100             |
| 410-50281-20      | Pipe 83 (2)            | 119  | 83              | 99               | 93              |
| 410-50281-21      | Pipe 80 (2)            | 114  | 87              | 94               | 99              |
| 410-50281-22      | Pipe 50 (2)            | 122  | 87              | 103              | 92              |
| 410-50281-23      | Pipe 49 (2)            | 114  | 78              | 104              | 98              |
| 410-50281-24      | Pipe 45 (2)            | 79   | 66              | 76               | 72              |
| 410-50281-25      | Pipe 47 (2)            | 82   | 68              | 79               | 72              |
| 410-50281-26      | Pipe 46 (2)            | 84   | 72              | 82               | 78              |
| 410-50281-27      | Pipe 48 (2)            | 115  | 80              | 105              | 99              |
| 410-50281-28      | 1043-P5 (3)            | 116  | 82              | 101              | 98              |
| 410-50281-29      | 1043-P4 (3)            | 116  | 80              | 103              | 98              |
| 410-50281-30      | 1043-P1 (3)            | 114  | 81              | 105              | 97              |
| 410-50281-31      | Pipe 51 (2)            | 121  | 67              | 106              | 108             |
| 410-50281-32      | Pipe 52 (2)            | 116  | 82              | 103              | 98              |
| LCS 410-158553/4  | Lab Control Sample     | 108  | 95              | 97               | 97              |
| LCS 410-159034/5  | Lab Control Sample     | 107  | 94              | 99               | 99              |
| LCS 410-159050/4  | Lab Control Sample     | 98   | 87              | 97               | 92              |
| LCS 410-159518/4  | Lab Control Sample     | 97   | 87              | 95               | 91              |
| LCSD 410-158553/5 | Lab Control Sample Dup | 103  | 94              | 95               | 97              |
| LCSD 410-159034/6 | Lab Control Sample Dup | 106  | 94              | 97               | 98              |
| LCSD 410-159050/5 | Lab Control Sample Dup | 97   | 88              | 97               | 91              |
| LCSD 410-159518/5 | Lab Control Sample Dup | 99   | 86              | 96               | 90              |
| MB 410-158553/7   | Method Blank           | 108  | 87              | 100              | 94              |
| MB 410-159034/10  | Method Blank           | 107  | 86              | 100              | 94              |
| MB 410-159050/7   | Method Blank           | 102  | 86              | 97               | 92              |
| MB 410-159518/7   | Method Blank           | 103  | 86              | 98               | 92              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50281-1

Project/Site: PBF Logistics

TOL = Toluene-d8 (Surr)

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID       | DCA<br>(80-120) | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
|-------------------|------------------------|-----------------|-----------------|------------------|-----------------|
| 410-50281-10      | Trip Blank             | 98              | 100             | 105              | 97              |
| LCS 410-158775/4  | Lab Control Sample     | 100             | 102             | 105              | 98              |
| LCSD 410-158775/5 | Lab Control Sample Dup | 100             | 101             | 104              | 97              |
| MB 410-158775/6   | Method Blank           | 97              | 101             | 105              | 97              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID    | Client Sample ID | FBP<br>(39-100) | NBZ<br>(32-97) | TPHd14<br>(45-108) |
|------------------|------------------|-----------------|----------------|--------------------|
| 410-50281-1      | DUP-3            | 81              | 69             | 82                 |
| 410-50281-1 MS   | DUP-3            | 84              | 73             | 84                 |
| 410-50281-1 MSD  | DUP-3            | 90              | 73             | 91                 |
| 410-50281-2      | 7551-P5 (3)      | 88              | 75             | 89                 |
| 410-50281-3      | Pipe 75 (2)      | 84              | 71             | 86                 |
| 410-50281-4      | 7551-P1 (3)      | 85              | 72             | 87                 |
| 410-50281-5      | Pipe 87 (2)      | 81              | 71             | 86                 |
| 410-50281-6      | 7551-P2 (3)      | 85              | 69             | 85                 |
| 410-50281-6 - DL | 7551-P2 (3)      | 84              | 67             | 82                 |
| 410-50281-7      | Pipe 77 (2)      | 73              | 82             | 80                 |
| 410-50281-8      | Pipe 76 (2)      | 90              | 79             | 88                 |
| 410-50281-9      | 7551-P3 (3)      | 93              | 78             | 90                 |
| 410-50281-11     | Pipe 53 (2)      | 85              | 73             | 85                 |
| 410-50281-12     | 1044-P4 (3)      | 91              | 73             | 84                 |
| 410-50281-13     | Pipe 55 (2)      | 82              | 65             | 77                 |
| 410-50281-14     | Pipe 78 (2)      | 91              | 81             | 89                 |
| 410-50281-15     | Pipe 79 (2)      | 87              | 77             | 83                 |
| 410-50281-16     | 7551-P7 (3)      | 90              | 79             | 87                 |
| 410-50281-17     | Pipe 82 (2)      | 79              | 72             | 87                 |
| 410-50281-18     | 7551-P6 (3)      | 80              | 69             | 82                 |
| 410-50281-19     | Pipe 81 (2)      | 81              | 65             | 79                 |
| 410-50281-20     | Pipe 83 (2)      | 89              | 75             | 86                 |
| 410-50281-21     | Pipe 80 (2)      | 86              | 75             | 87                 |
| 410-50281-22     | Pipe 50 (2)      | 82              | 65             | 74                 |
| 410-50281-23     | Pipe 49 (2)      | 91              | 73             | 85                 |
| 410-50281-24     | Pipe 45 (2)      | 81              | 66             | 76                 |
| 410-50281-25     | Pipe 47 (2)      | 68              | 59             | 66                 |
| 410-50281-26     | Pipe 46 (2)      | 69              | 49             | 75                 |
| 410-50281-27     | Pipe 48 (2)      | 72              | 62             | 76                 |
| 410-50281-28     | 1043-P5 (3)      | 83              | 72             | 79                 |
| 410-50281-29     | 1043-P4 (3)      | 84              | 71             | 85                 |
| 410-50281-30     | 1043-P1 (3)      | 66              | 56             | 74                 |

## Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50281-1

Project/Site: PBF Logistics

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-50281-31       | Pipe 51 (2)        | 89   | 76             | 101                |
| 410-50281-32       | Pipe 52 (2)        | 70   | 58             | 68                 |
| LCS 410-158484/2-A | Lab Control Sample | 76   | 67             | 88                 |
| LCS 410-158485/2-A | Lab Control Sample | 93   | 78             | 92                 |
| LCS 410-158764/2-A | Lab Control Sample | 98   | 79             | 92                 |
| LCS 410-159307/2-A | Lab Control Sample | 85   | 72             | 97                 |
| MB 410-158484/1-A  | Method Blank       | 83   | 75             | 97                 |
| MB 410-158485/1-A  | Method Blank       | 94   | 83             | 94                 |
| MB 410-158764/1-A  | Method Blank       | 91   | 79             | 94                 |
| MB 410-159307/1-A  | Method Blank       | 86   | 75             | 98                 |

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-158553/7

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/10/21 11:44 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/10/21 11:44 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108          |              | 54 - 135 |          | 08/10/21 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87           |              | 50 - 131 |          | 08/10/21 11:44 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/10/21 11:44 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 08/10/21 11:44 | 1       |

Lab Sample ID: LCS 410-158553/4

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.9       |               | ug/Kg |   | 95   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 16.5       |               | ug/Kg |   | 83   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.9       |               | ug/Kg |   | 89   | 73 - 120     |
| Toluene                     | 20.0        | 17.4       |               | ug/Kg |   | 87   | 80 - 120     |
| Xylenes, Total              | 60.0        | 51.9       |               | ug/Kg |   | 87   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 16.8       |               | ug/Kg |   | 84   | 72 - 120     |
| Benzene                     | 20.0        | 19.8       |               | ug/Kg |   | 99   | 80 - 120     |
| Naphthalene                 | 20.0        | 15.4       |               | ug/Kg |   | 77   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.8       |               | ug/Kg |   | 89   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 16.9       |               | ug/Kg |   | 85   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 17.6       |               | ug/Kg |   | 88   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 108           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 95            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-158553/5

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 18.8        |                | ug/Kg |   | 94   | 78 - 120     | 0   | 30        |
| 1,2-Dichloroethane | 20.0        | 16.5        |                | ug/Kg |   | 82   | 71 - 128     | 0   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-158553/5

Matrix: Solid

Analysis Batch: 158553

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 17.8        |                | ug/Kg |   | 89   | 80 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 51.9        |                | ug/Kg |   | 87   | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 15.8        |                | ug/Kg |   | 79   | 72 - 120     | 6   | 30        |
| Benzene                     | 20.0        | 19.7        |                | ug/Kg |   | 99   | 80 - 120     | 0   | 30        |
| Naphthalene                 | 20.0        | 14.0        |                | ug/Kg |   | 70   | 48 - 130     | 9   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.9        |                | ug/Kg |   | 90   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 20.0        | 16.9        |                | ug/Kg |   | 84   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 20.0        | 17.0        |                | ug/Kg |   | 85   | 76 - 120     | 4   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 95             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-159034/10

Matrix: Solid

Analysis Batch: 159034

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/11/21 12:19 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/11/21 12:19 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107          |              | 54 - 135 |          | 08/11/21 12:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86           |              | 50 - 131 |          | 08/11/21 12:19 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/11/21 12:19 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 08/11/21 12:19 | 1       |

Lab Sample ID: LCS 410-159034/5

Matrix: Solid

Analysis Batch: 159034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 20.0        | 19.4       |               | ug/Kg |   | 97   | 78 - 120     |
| 1,2-Dichloroethane     | 20.0        | 17.1       |               | ug/Kg |   | 86   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 20.0        | 18.3       |               | ug/Kg |   | 91   | 73 - 120     |
| Toluene                | 20.0        | 18.3       |               | ug/Kg |   | 91   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-159034/5

Matrix: Solid

Analysis Batch: 159034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 60.0        | 53.2       |               | ug/Kg |   | 89   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 16.5       |               | ug/Kg |   | 83   | 72 - 120     |
| Benzene                     | 20.0        | 19.9       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 20.0        | 15.1       |               | ug/Kg |   | 76   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.2       |               | ug/Kg |   | 91   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 17.1       |               | ug/Kg |   | 86   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 18.1       |               | ug/Kg |   | 91   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 107           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-159034/6

Matrix: Solid

Analysis Batch: 159034

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 19.2        |                | ug/Kg |   | 96   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 16.6        |                | ug/Kg |   | 83   | 71 - 128     | 3   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 91   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 18.1        |                | ug/Kg |   | 91   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 53.1        |                | ug/Kg |   | 89   | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 16.5        |                | ug/Kg |   | 83   | 72 - 120     | 0   | 30        |
| Benzene                     | 20.0        | 19.9        |                | ug/Kg |   | 100  | 80 - 120     | 0   | 30        |
| Naphthalene                 | 20.0        | 15.2        |                | ug/Kg |   | 76   | 48 - 130     | 0   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.2        |                | ug/Kg |   | 91   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 20.0        | 16.9        |                | ug/Kg |   | 85   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 20.0        | 18.0        |                | ug/Kg |   | 90   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 106            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

Lab Sample ID: MB 410-159050/7

Matrix: Solid

Analysis Batch: 159050

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/11/21 11:35 | 50      |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-159050/7

Matrix: Solid

Analysis Batch: 159050

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 250 | 25  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| Naphthalene            | ND        |              | 250 | 100 | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| Isopropylbenzene       | ND        |              | 250 | 20  | ug/Kg |   |          | 08/11/21 11:35 | 50      |
| 1,2-Dibromoethane      | ND        |              | 250 | 20  | ug/Kg |   |          | 08/11/21 11:35 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102          |              | 54 - 135 |          | 08/11/21 11:35 | 50      |
| 4-Bromofluorobenzene (Surr)  | 86           |              | 50 - 131 |          | 08/11/21 11:35 | 50      |
| Dibromofluoromethane (Surr)  | 97           |              | 50 - 141 |          | 08/11/21 11:35 | 50      |
| Toluene-d8 (Surr)            | 92           |              | 52 - 141 |          | 08/11/21 11:35 | 50      |

Lab Sample ID: LCS 410-159050/4

Matrix: Solid

Analysis Batch: 159050

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 945        |               | ug/Kg |   | 95   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 887        |               | ug/Kg |   | 89   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 860        |               | ug/Kg |   | 86   | 73 - 120     |
| Toluene                     | 1000        | 952        |               | ug/Kg |   | 95   | 80 - 120     |
| Xylenes, Total              | 3000        | 2890       |               | ug/Kg |   | 96   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 941        |               | ug/Kg |   | 94   | 72 - 120     |
| Benzene                     | 1000        | 975        |               | ug/Kg |   | 97   | 80 - 120     |
| Naphthalene                 | 1000        | 894        |               | ug/Kg |   | 89   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 851        |               | ug/Kg |   | 85   | 73 - 120     |
| Isopropylbenzene            | 1000        | 975        |               | ug/Kg |   | 97   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 957        |               | ug/Kg |   | 96   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 92            |               | 52 - 141 |

Lab Sample ID: LCSD 410-159050/5

Matrix: Solid

Analysis Batch: 159050

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 932         |                | ug/Kg |   | 93   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 886         |                | ug/Kg |   | 89   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 848         |                | ug/Kg |   | 85   | 73 - 120     | 1   | 30        |
| Toluene                     | 1000        | 950         |                | ug/Kg |   | 95   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 3000        | 2880        |                | ug/Kg |   | 96   | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 1000        | 925         |                | ug/Kg |   | 92   | 72 - 120     | 2   | 30        |
| Benzene                     | 1000        | 969         |                | ug/Kg |   | 97   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 915         |                | ug/Kg |   | 92   | 48 - 130     | 2   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-159050/5

Matrix: Solid

Analysis Batch: 159050

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene | 1000        | 845         |                | ug/Kg |   | 85   | 73 - 120     | 1   | 30        |
| Isopropylbenzene       | 1000        | 957         |                | ug/Kg |   | 96   | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane      | 1000        | 949         |                | ug/Kg |   | 95   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 88             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 91             |                | 52 - 141 |

Lab Sample ID: MB 410-159518/7

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/12/21 11:12 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 54 - 135 |          | 08/12/21 11:12 | 50      |
| 4-Bromofluorobenzene (Surr)  | 86           |              | 50 - 131 |          | 08/12/21 11:12 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/12/21 11:12 | 50      |
| Toluene-d8 (Surr)            | 92           |              | 52 - 141 |          | 08/12/21 11:12 | 50      |

Lab Sample ID: LCS 410-159518/4

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 958        |               | ug/Kg |   | 96   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 935        |               | ug/Kg |   | 93   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 875        |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                     | 1000        | 969        |               | ug/Kg |   | 97   | 80 - 120     |
| Xylenes, Total              | 3000        | 2950       |               | ug/Kg |   | 98   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 960        |               | ug/Kg |   | 96   | 72 - 120     |
| Benzene                     | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| Naphthalene                 | 1000        | 919        |               | ug/Kg |   | 92   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 874        |               | ug/Kg |   | 87   | 73 - 120     |
| Isopropylbenzene            | 1000        | 991        |               | ug/Kg |   | 99   | 77 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-159518/4

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,2-Dibromoethane | 1000        | 979        |               | ug/Kg |   | 98   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 95            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 91            |               | 52 - 141 |

Lab Sample ID: LCSD 410-159518/5

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 941         |                | ug/Kg |   | 94   | 78 - 120     | 2   | 30        |
| 1,2-Dichloroethane          | 1000        | 950         |                | ug/Kg |   | 95   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 873         |                | ug/Kg |   | 87   | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 961         |                | ug/Kg |   | 96   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2910        |                | ug/Kg |   | 97   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 980         |                | ug/Kg |   | 98   | 72 - 120     | 2   | 30        |
| Benzene                     | 1000        | 1000        |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 924         |                | ug/Kg |   | 92   | 48 - 130     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 866         |                | ug/Kg |   | 87   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 1000        | 981         |                | ug/Kg |   | 98   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 1000        | 970         |                | ug/Kg |   | 97   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 86             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 96             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 90             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-158775/6

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/10/21 20:07 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/10/21 20:07 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/10/21 20:07 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-158775/6

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Isopropylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/10/21 20:07 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97           |              | 80 - 120 |          | 08/10/21 20:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 101          |              | 80 - 120 |          | 08/10/21 20:07 | 1       |
| Dibromofluoromethane (Surr)  | 105          |              | 80 - 120 |          | 08/10/21 20:07 | 1       |
| Toluene-d8 (Surr)            | 97           |              | 80 - 120 |          | 08/10/21 20:07 | 1       |

Lab Sample ID: LCS 410-158775/4

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromoethane           | 20.0        | 18.6       |               | ug/L |   | 93   | 77 - 120     |
| Ethylbenzene                | 20.0        | 18.8       |               | ug/L |   | 94   | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 17.9       |               | ug/L |   | 89   | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.1       |               | ug/L |   | 91   | 75 - 120     |
| Toluene                     | 20.0        | 18.4       |               | ug/L |   | 92   | 80 - 120     |
| Xylenes, Total              | 60.0        | 55.4       |               | ug/L |   | 92   | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.8       |               | ug/L |   | 94   | 69 - 122     |
| Benzene                     | 20.0        | 18.9       |               | ug/L |   | 95   | 80 - 120     |
| Naphthalene                 | 20.0        | 18.0       |               | ug/L |   | 90   | 53 - 124     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.9       |               | ug/L |   | 90   | 75 - 120     |
| Isopropylbenzene            | 20.0        | 18.5       |               | ug/L |   | 92   | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 102           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 105           |               | 80 - 120 |
| Toluene-d8 (Surr)            | 98            |               | 80 - 120 |

Lab Sample ID: LCSD 410-158775/5

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,2-Dibromoethane           | 20.0        | 19.7        |                | ug/L |   | 98   | 77 - 120     | 5   | 30        |
| Ethylbenzene                | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 120     | 8   | 30        |
| 1,2-Dichloroethane          | 20.0        | 19.4        |                | ug/L |   | 97   | 73 - 124     | 8   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.6        |                | ug/L |   | 98   | 75 - 120     | 8   | 30        |
| Toluene                     | 20.0        | 19.9        |                | ug/L |   | 99   | 80 - 120     | 7   | 30        |
| Xylenes, Total              | 60.0        | 59.7        |                | ug/L |   | 100  | 80 - 120     | 7   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.6        |                | ug/L |   | 103  | 69 - 122     | 9   | 30        |
| Benzene                     | 20.0        | 20.8        |                | ug/L |   | 104  | 80 - 120     | 10  | 30        |
| Naphthalene                 | 20.0        | 19.8        |                | ug/L |   | 99   | 53 - 124     | 9   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.6        |                | ug/L |   | 98   | 75 - 120     | 9   | 30        |
| Isopropylbenzene            | 20.0        | 19.8        |                | ug/L |   | 99   | 80 - 120     | 7   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-158775/5

Matrix: Water

Analysis Batch: 158775

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 80 - 120 |
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 120 |
| Toluene-d8 (Surr)            | 97        |           | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-158484/1-A

Matrix: Solid

Analysis Batch: 159419

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158484

| Analyte              | MB     | MB        |    |     |       |   |                |                |         |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
|                      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
| Anthracene           | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Benzo[a]anthracene   | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Benzo[a]pyrene       | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Benzo[b]fluoranthene | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Chrysene             | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Fluorene             | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Phenanthrene         | ND     |           | 17 | 4.0 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |
| Pyrene               | ND     |           | 17 | 3.3 | ug/Kg |   | 08/10/21 09:43 | 08/12/21 00:33 | 1       |

|                         | MB        | MB        |          |                |                |         |  |  |  |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|--|--|--|
| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |  |  |  |
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 | 08/10/21 09:43 | 08/12/21 00:33 | 1       |  |  |  |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  | 08/10/21 09:43 | 08/12/21 00:33 | 1       |  |  |  |
| p-Terphenyl-d14 (Surr)  | 97        |           | 45 - 108 | 08/10/21 09:43 | 08/12/21 00:33 | 1       |  |  |  |

Lab Sample ID: LCS 410-158484/2-A

Matrix: Solid

Analysis Batch: 159419

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158484

| Analyte              | Spike | LCS    | LCS       |       |   |      |          |  |  |
|----------------------|-------|--------|-----------|-------|---|------|----------|--|--|
|                      | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |  |
| Anthracene           | 1670  | 1350   |           | ug/Kg |   | 81   | 75 - 120 |  |  |
| Benzo[a]anthracene   | 1670  | 1370   |           | ug/Kg |   | 82   | 73 - 120 |  |  |
| Benzo[a]pyrene       | 1670  | 1530   |           | ug/Kg |   | 92   | 80 - 123 |  |  |
| Benzo[b]fluoranthene | 1670  | 1460   |           | ug/Kg |   | 87   | 63 - 120 |  |  |
| Benzo[g,h,i]perylene | 1670  | 1780   |           | ug/Kg |   | 107  | 77 - 120 |  |  |
| Chrysene             | 1670  | 1430   |           | ug/Kg |   | 86   | 66 - 120 |  |  |
| Fluorene             | 1670  | 1360   |           | ug/Kg |   | 81   | 68 - 120 |  |  |
| Phenanthrene         | 1670  | 1310   |           | ug/Kg |   | 79   | 74 - 120 |  |  |
| Pyrene               | 1670  | 1320   |           | ug/Kg |   | 79   | 70 - 120 |  |  |

|                         | LCS       | LCS       |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108 |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-158485/1-A

Matrix: Solid

Analysis Batch: 158700

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158485

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 09:37 | 08/10/21 15:51 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 94           |              | 39 - 100 | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| Nitrobenzene-d5 (Surr)  | 83           |              | 32 - 97  | 08/10/21 09:37 | 08/10/21 15:51 | 1       |
| p-Terphenyl-d14 (Surr)  | 94           |              | 45 - 108 | 08/10/21 09:37 | 08/10/21 15:51 | 1       |

Lab Sample ID: LCS 410-158485/2-A

Matrix: Solid

Analysis Batch: 158700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158485

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1580       |               | ug/Kg |   | 95   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1580       |               | ug/Kg |   | 95   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1640       |               | ug/Kg |   | 98   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1540       |               | ug/Kg |   | 92   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1640       |               | ug/Kg |   | 98   | 77 - 120     |
| Chrysene             | 1670        | 1540       |               | ug/Kg |   | 92   | 66 - 120     |
| Fluorene             | 1670        | 1710       |               | ug/Kg |   | 103  | 68 - 120     |
| Phenanthrene         | 1670        | 1540       |               | ug/Kg |   | 92   | 74 - 120     |
| Pyrene               | 1670        | 1570       |               | ug/Kg |   | 94   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 93            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 78            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 92            |               | 45 - 108 |

Lab Sample ID: 410-50281-1 MS

Matrix: Solid

Analysis Batch: 158700

Client Sample ID: DUP-3

Prep Type: Total/NA

Prep Batch: 158485

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Anthracene           | 7.0           | J                | 1940        | 1710      |              | ug/Kg | ☼ | 88   | 75 - 120     |
| Benzo[a]anthracene   | 19            | FH F2            | 1940        | 1730      |              | ug/Kg | ☼ | 88   | 73 - 120     |
| Benzo[a]pyrene       | 22            |                  | 1940        | 1820      |              | ug/Kg | ☼ | 93   | 80 - 123     |
| Benzo[b]fluoranthene | 25            |                  | 1940        | 1700      |              | ug/Kg | ☼ | 86   | 63 - 120     |
| Benzo[g,h,i]perylene | 24            |                  | 1940        | 1890      |              | ug/Kg | ☼ | 96   | 77 - 120     |
| Chrysene             | 20            | F2               | 1940        | 1680      |              | ug/Kg | ☼ | 86   | 66 - 120     |
| Fluorene             | 4.9           | J                | 1940        | 1790      |              | ug/Kg | ☼ | 92   | 68 - 120     |
| Phenanthrene         | 26            | FH F2            | 1940        | 1680      |              | ug/Kg | ☼ | 85   | 74 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-50281-1 MS

Matrix: Solid

Analysis Batch: 158700

Client Sample ID: DUP-3

Prep Type: Total/NA

Prep Batch: 158485

| Analyte                 | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Pyrene                  | 34            | FH F2            | 1940        | 1740      |              | ug/Kg | ⊛ | 88   | 70 - 120     |
|                         |               |                  |             |           |              |       |   |      |              |
| Surrogate               | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 84            |                  | 39 - 100    |           |              |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 73            |                  | 32 - 97     |           |              |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 84            |                  | 45 - 108    |           |              |       |   |      |              |

Lab Sample ID: 410-50281-1 MSD

Matrix: Solid

Analysis Batch: 158700

Client Sample ID: DUP-3

Prep Type: Total/NA

Prep Batch: 158485

| Analyte                 | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Anthracene              | 7.0           | J                | 1940        | 1940       |               | ug/Kg | ⊛ | 100  | 75 - 120     | 13  | 30        |
| Benzo[a]anthracene      | 19            | FH F2            | 1940        | 2400       | FH F2         | ug/Kg | ⊛ | 123  | 73 - 120     | 33  | 30        |
| Benzo[a]pyrene          | 22            |                  | 1940        | 2300       |               | ug/Kg | ⊛ | 117  | 80 - 123     | 23  | 30        |
| Benzo[b]fluoranthene    | 25            |                  | 1940        | 2170       |               | ug/Kg | ⊛ | 111  | 63 - 120     | 25  | 30        |
| Benzo[g,h,i]perylene    | 24            |                  | 1940        | 2250       |               | ug/Kg | ⊛ | 115  | 77 - 120     | 18  | 30        |
| Chrysene                | 20            | F2               | 1940        | 2310       | F2            | ug/Kg | ⊛ | 118  | 66 - 120     | 31  | 30        |
| Fluorene                | 4.9           | J                | 1940        | 1950       |               | ug/Kg | ⊛ | 101  | 68 - 120     | 9   | 30        |
| Phenanthrene            | 26            | FH F2            | 1940        | 2660       | FH F2         | ug/Kg | ⊛ | 136  | 74 - 120     | 45  | 30        |
| Pyrene                  | 34            | FH F2            | 1940        | 2730       | FH F2         | ug/Kg | ⊛ | 139  | 70 - 120     | 44  | 30        |
|                         |               |                  |             |            |               |       |   |      |              |     |           |
| Surrogate               | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| 2-Fluorobiphenyl (Surr) | 90            |                  | 39 - 100    |            |               |       |   |      |              |     |           |
| Nitrobenzene-d5 (Surr)  | 73            |                  | 32 - 97     |            |               |       |   |      |              |     |           |
| p-Terphenyl-d14 (Surr)  | 91            |                  | 45 - 108    |            |               |       |   |      |              |     |           |

Lab Sample ID: MB 410-158764/1-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158764

|                         | MB        | MB        |          |     |       |   |                |                |         |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
| Anthracene              | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[a]anthracene      | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[a]pyrene          | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Chrysene                | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Fluorene                | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Phenanthrene            | ND        |           | 17       | 4.0 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Pyrene                  | ND        |           | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
|                         |           |           |          |     |       |   |                |                |         |
|                         | MB        | MB        |          |     |       |   |                |                |         |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 91        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Nitrobenzene-d5 (Surr)  | 79        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| p-Terphenyl-d14 (Surr)  | 94        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-158764/2-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158764

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1650       |               | ug/Kg |   | 99   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1670       |               | ug/Kg |   | 100  | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1720       |               | ug/Kg |   | 103  | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1510       |               | ug/Kg |   | 91   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1710       |               | ug/Kg |   | 103  | 77 - 120     |
| Chrysene             | 1670        | 1630       |               | ug/Kg |   | 98   | 66 - 120     |
| Fluorene             | 1670        | 1800       |               | ug/Kg |   | 108  | 68 - 120     |
| Phenanthrene         | 1670        | 1610       |               | ug/Kg |   | 97   | 74 - 120     |
| Pyrene               | 1670        | 1640       |               | ug/Kg |   | 98   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 98            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 79            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 92            |               | 45 - 108 |

Lab Sample ID: MB 410-159307/1-A

Matrix: Solid

Analysis Batch: 159845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159307

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 17:48 | 08/12/21 20:01 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 86           |              | 39 - 100 | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| Nitrobenzene-d5 (Surr)  | 75           |              | 32 - 97  | 08/11/21 17:48 | 08/12/21 20:01 | 1       |
| p-Terphenyl-d14 (Surr)  | 98           |              | 45 - 108 | 08/11/21 17:48 | 08/12/21 20:01 | 1       |

Lab Sample ID: LCS 410-159307/2-A

Matrix: Solid

Analysis Batch: 159845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159307

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1450       |               | ug/Kg |   | 87   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1500       |               | ug/Kg |   | 90   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1640       |               | ug/Kg |   | 98   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1520       |               | ug/Kg |   | 91   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1860       |               | ug/Kg |   | 112  | 77 - 120     |
| Chrysene             | 1670        | 1520       |               | ug/Kg |   | 91   | 66 - 120     |
| Fluorene             | 1670        | 1520       |               | ug/Kg |   | 91   | 68 - 120     |
| Phenanthrene         | 1670        | 1410       |               | ug/Kg |   | 85   | 74 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-159307/2-A

Matrix: Solid

Analysis Batch: 159845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159307

| Analyte                 | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Pyrene                  | 1670          | 1420          |               | ug/Kg |   | 85   | 70 - 120     |
| Surrogate               | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 85            |               | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 72            |               | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 97            |               | 45 - 108      |       |   |      |              |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-157947/1-A

Matrix: Solid

Analysis Batch: 159302

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157947

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 08/09/21 03:32 | 08/11/21 13:25 | 1       |

Lab Sample ID: LCS 410-157947/2-A

Matrix: Solid

Analysis Batch: 159302

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 157947

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 4.66       |               | mg/Kg |   | 93   | 80 - 120     |

Lab Sample ID: 410-50281-28 MS

Matrix: Solid

Analysis Batch: 159302

Client Sample ID: 1043-P5 (3)

Prep Type: Total/NA

Prep Batch: 157947

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Lead    | 560           | F2               | 5.40        | 797       | 4            | mg/Kg | ✱ | 4308 | 75 - 125     |

Lab Sample ID: 410-50281-28 MSD

Matrix: Solid

Analysis Batch: 159302

Client Sample ID: 1043-P5 (3)

Prep Type: Total/NA

Prep Batch: 157947

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-----------|
| Lead    | 560           | F2               | 5.09        | 1450       | 4 F2          | mg/Kg | ✱ | 17380 | 75 - 125     | 58  | 20        |

Lab Sample ID: 410-50281-28 DU

Matrix: Solid

Analysis Batch: 159302

Client Sample ID: 1043-P5 (3)

Prep Type: Total/NA

Prep Batch: 157947

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Lead    | 560           | F2               | 563       |              | mg/Kg | ✱ | 0.2 | 20        |

Lab Sample ID: MB 410-157948/1-A

Matrix: Solid

Analysis Batch: 159680

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157948

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 08/09/21 03:39 | 08/12/21 09:38 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 410-157948/2-A

Matrix: Solid

Analysis Batch: 159680

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 157948

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.37       |               | mg/Kg |   | 107  | 80 - 120     |

Lab Sample ID: 410-50281-13 MS

Matrix: Solid

Analysis Batch: 159680

Client Sample ID: Pipe 55 (2)

Prep Type: Total/NA

Prep Batch: 157948

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Lead    | 750           | F2               | 5.96        | 2750      | E 4          | mg/Kg | ✱ | 33531 | 75 - 125     |

Lab Sample ID: 410-50281-13 MSD

Matrix: Solid

Analysis Batch: 159680

Client Sample ID: Pipe 55 (2)

Prep Type: Total/NA

Prep Batch: 157948

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Lead    | 750           | F2               | 6.56        | 1400       | 4 F2          | mg/Kg | ✱ | 9952 | 75 - 125     | 65  | 20        |

Lab Sample ID: 410-50281-13 DU

Matrix: Solid

Analysis Batch: 159680

Client Sample ID: Pipe 55 (2)

Prep Type: Total/NA

Prep Batch: 157948

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Lead    | 750           | F2               | 1080      | F3           | mg/Kg | ✱ | 36  | 20        |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## GC/MS VOA

### Prep Batch: 157883

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-50281-1       | DUP-3            | Total/NA  | Solid  | 5035   |            |
| 410-50281-2       | 7551-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-4       | 7551-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-6       | 7551-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-8       | Pipe 76 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-9       | 7551-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-11 - RA | Pipe 53 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-11      | Pipe 53 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-12      | 1044-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-17      | Pipe 82 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-19      | Pipe 81 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-20      | Pipe 83 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-21      | Pipe 80 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-22      | Pipe 50 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-23      | Pipe 49 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-27      | Pipe 48 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-28      | 1043-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-29      | 1043-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-30      | 1043-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-31 - RA | Pipe 51 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-31      | Pipe 51 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-32      | Pipe 52 (2)      | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 157884

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-50281-3       | Pipe 75 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-5       | Pipe 87 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-7       | Pipe 77 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-13      | Pipe 55 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-14      | Pipe 78 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-15      | Pipe 79 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-15 - DL | Pipe 79 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-16      | 7551-P7 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-18 - DL | 7551-P6 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-18      | 7551-P6 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-24      | Pipe 45 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-25      | Pipe 47 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50281-26      | Pipe 46 (2)      | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 158553

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50281-1   | DUP-3            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-2   | 7551-P5 (3)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-4   | 7551-P1 (3)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-6   | 7551-P2 (3)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-8   | Pipe 76 (2)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-9   | 7551-P3 (3)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-11  | Pipe 53 (2)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-12  | 1044-P4 (3)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-17  | Pipe 82 (2)      | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-20  | Pipe 83 (2)      | Total/NA  | Solid  | 8260C  | 157883     |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### GC/MS VOA (Continued)

#### Analysis Batch: 158553 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50281-22      | Pipe 50 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-23      | Pipe 49 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-27      | Pipe 48 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-29      | 1043-P4 (3)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-30      | 1043-P1 (3)            | Total/NA  | Solid  | 8260C  | 157883     |
| MB 410-158553/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-158553/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-158553/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 158775

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-50281-10      | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-158775/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-158775/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-158775/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

#### Analysis Batch: 159034

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50281-11 - RA | Pipe 53 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-19      | Pipe 81 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-21      | Pipe 80 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-28      | 1043-P5 (3)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-31      | Pipe 51 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| 410-50281-32      | Pipe 52 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| MB 410-159034/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159034/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159034/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 159050

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50281-3       | Pipe 75 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-5       | Pipe 87 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-7       | Pipe 77 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-13      | Pipe 55 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-14      | Pipe 78 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-15      | Pipe 79 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-16      | 7551-P7 (3)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-18      | 7551-P6 (3)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-24      | Pipe 45 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-25      | Pipe 47 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-26      | Pipe 46 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| MB 410-159050/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159050/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159050/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 159083

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50281-31 - RA | Pipe 51 (2)            | Total/NA  | Solid  | 8260C  | 157883     |
| MB 410-159083/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159083/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159083/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### GC/MS VOA

#### Analysis Batch: 159518

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50281-15 - DL | Pipe 79 (2)            | Total/NA  | Solid  | 8260C  | 157884     |
| 410-50281-18 - DL | 7551-P6 (3)            | Total/NA  | Solid  | 8260C  | 157884     |
| MB 410-159518/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159518/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159518/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 158484

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-11       | Pipe 53 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-12       | 1044-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-13       | Pipe 55 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-22       | Pipe 50 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-23       | Pipe 49 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-24       | Pipe 45 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-25       | Pipe 47 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-26       | Pipe 46 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-158484/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158484/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 158485

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-1        | DUP-3              | Total/NA  | Solid  | 3546   |            |
| 410-50281-2        | 7551-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-3        | Pipe 75 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-4        | 7551-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-5        | Pipe 87 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-6        | 7551-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-6 - DL   | 7551-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-7        | Pipe 77 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-8        | Pipe 76 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-9        | 7551-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-14       | Pipe 78 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-15       | Pipe 79 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-16       | 7551-P7 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-18       | 7551-P6 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-27       | Pipe 48 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-28       | 1043-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-29       | 1043-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-30       | 1043-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-31       | Pipe 51 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-32       | Pipe 52 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-158485/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158485/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-50281-1 MS     | DUP-3              | Total/NA  | Solid  | 3546   |            |
| 410-50281-1 MSD    | DUP-3              | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 158700

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50281-1   | DUP-3            | Total/NA  | Solid  | 8270D  | 158485     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### GC/MS Semi VOA (Continued)

#### Analysis Batch: 158700 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-2        | 7551-P5 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-3        | Pipe 75 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-4        | 7551-P1 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-5        | Pipe 87 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-6        | 7551-P2 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-7        | Pipe 77 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-8        | Pipe 76 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-9        | 7551-P3 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-14       | Pipe 78 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-15       | Pipe 79 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-16       | 7551-P7 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-18       | 7551-P6 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-27       | Pipe 48 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-28       | 1043-P5 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-29       | 1043-P4 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-30       | 1043-P1 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-31       | Pipe 51 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-32       | Pipe 52 (2)        | Total/NA  | Solid  | 8270D  | 158485     |
| MB 410-158485/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158485     |
| LCS 410-158485/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-1 MS     | DUP-3              | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-1 MSD    | DUP-3              | Total/NA  | Solid  | 8270D  | 158485     |

#### Prep Batch: 158764

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-19       | Pipe 81 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-20       | Pipe 83 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50281-21       | Pipe 80 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-158764/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158764/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 158947

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-6 - DL   | 7551-P2 (3)        | Total/NA  | Solid  | 8270D  | 158485     |
| 410-50281-19       | Pipe 81 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50281-20       | Pipe 83 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50281-21       | Pipe 80 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| MB 410-158764/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158764     |
| LCS 410-158764/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158764     |

#### Prep Batch: 159307

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-17       | Pipe 82 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-159307/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-159307/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 159419

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-158484/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158484     |
| LCS 410-158484/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158484     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### GC/MS Semi VOA

#### Analysis Batch: 159422

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50281-11  | Pipe 53 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-12  | 1044-P4 (3)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-13  | Pipe 55 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-22  | Pipe 50 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-23  | Pipe 49 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-24  | Pipe 45 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-25  | Pipe 47 (2)      | Total/NA  | Solid  | 8270D  | 158484     |
| 410-50281-26  | Pipe 46 (2)      | Total/NA  | Solid  | 8270D  | 158484     |

#### Analysis Batch: 159845

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-17       | Pipe 82 (2)        | Total/NA  | Solid  | 8270D  | 159307     |
| MB 410-159307/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 159307     |
| LCS 410-159307/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 159307     |

### Metals

#### Prep Batch: 157947

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-1        | DUP-3              | Total/NA  | Solid  | 3050B  |            |
| 410-50281-2        | 7551-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-3        | Pipe 75 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-4        | 7551-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-5        | Pipe 87 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-7        | Pipe 77 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-19       | Pipe 81 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-20       | Pipe 83 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-21       | Pipe 80 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-22       | Pipe 50 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-23       | Pipe 49 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-24       | Pipe 45 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-25       | Pipe 47 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-26       | Pipe 46 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-27       | Pipe 48 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-28       | 1043-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-29       | 1043-P4 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-30       | 1043-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-31       | Pipe 51 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-32       | Pipe 52 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-157947/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-157947/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-50281-28 MS    | 1043-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-28 MSD   | 1043-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-28 DU    | 1043-P5 (3)        | Total/NA  | Solid  | 3050B  |            |

#### Prep Batch: 157948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50281-6   | 7551-P2 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50281-8   | Pipe 76 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50281-9   | 7551-P3 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50281-11  | Pipe 53 (2)      | Total/NA  | Solid  | 3050B  |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Metals (Continued)

#### Prep Batch: 157948 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-12       | 1044-P4 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-13       | Pipe 55 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-14       | Pipe 78 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-15       | Pipe 79 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-16       | 7551-P7 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-17       | Pipe 82 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-18       | 7551-P6 (3)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-157948/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-157948/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-50281-13 MS    | Pipe 55 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-13 MSD   | Pipe 55 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50281-13 DU    | Pipe 55 (2)        | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 159302

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-1        | DUP-3              | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-2        | 7551-P5 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-3        | Pipe 75 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-4        | 7551-P1 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-5        | Pipe 87 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-7        | Pipe 77 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-19       | Pipe 81 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-20       | Pipe 83 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-21       | Pipe 80 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-22       | Pipe 50 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-23       | Pipe 49 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-24       | Pipe 45 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-25       | Pipe 47 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-26       | Pipe 46 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-27       | Pipe 48 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-28       | 1043-P5 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-29       | 1043-P4 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-30       | 1043-P1 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-31       | Pipe 51 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-32       | Pipe 52 (2)        | Total/NA  | Solid  | 6010C  | 157947     |
| MB 410-157947/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 157947     |
| LCS 410-157947/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-28 MS    | 1043-P5 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-28 MSD   | 1043-P5 (3)        | Total/NA  | Solid  | 6010C  | 157947     |
| 410-50281-28 DU    | 1043-P5 (3)        | Total/NA  | Solid  | 6010C  | 157947     |

#### Analysis Batch: 159680

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50281-6   | 7551-P2 (3)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-8   | Pipe 76 (2)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-9   | 7551-P3 (3)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-11  | Pipe 53 (2)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-12  | 1044-P4 (3)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-13  | Pipe 55 (2)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-14  | Pipe 78 (2)      | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-15  | Pipe 79 (2)      | Total/NA  | Solid  | 6010C  | 157948     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Metals (Continued)

#### Analysis Batch: 159680 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50281-16       | 7551-P7 (3)        | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-17       | Pipe 82 (2)        | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-18       | 7551-P6 (3)        | Total/NA  | Solid  | 6010C  | 157948     |
| MB 410-157948/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 157948     |
| LCS 410-157948/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-13 MS    | Pipe 55 (2)        | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-13 MSD   | Pipe 55 (2)        | Total/NA  | Solid  | 6010C  | 157948     |
| 410-50281-13 DU    | Pipe 55 (2)        | Total/NA  | Solid  | 6010C  | 157948     |

### General Chemistry

#### Analysis Batch: 157749

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50281-7   | Pipe 77 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-19  | Pipe 81 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-20  | Pipe 83 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-21  | Pipe 80 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-22  | Pipe 50 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-23  | Pipe 49 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-24  | Pipe 45 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-25  | Pipe 47 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-26  | Pipe 46 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-27  | Pipe 48 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-28  | 1043-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-29  | 1043-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-30  | 1043-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-31  | Pipe 51 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-32  | Pipe 52 (2)      | Total/NA  | Solid  | Moisture |            |

#### Analysis Batch: 157763

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50281-1   | DUP-3            | Total/NA  | Solid  | Moisture |            |
| 410-50281-2   | 7551-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-3   | Pipe 75 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-4   | 7551-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-5   | Pipe 87 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-6   | 7551-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-8   | Pipe 76 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-9   | 7551-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-11  | Pipe 53 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-12  | 1044-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-13  | Pipe 55 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-14  | Pipe 78 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-15  | Pipe 79 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-16  | 7551-P7 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-17  | Pipe 82 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50281-18  | 7551-P6 (3)      | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: DUP-3**

**Lab Sample ID: 410-50281-1**

**Date Collected: 08/06/21 00:00**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

**Client Sample ID: DUP-3**

**Lab Sample ID: 410-50281-1**

**Date Collected: 08/06/21 00:00**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:04       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 13:13       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 16:36       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 15:00       | MDP5    | ELLE |

**Client Sample ID: 7551-P5 (3)**

**Lab Sample ID: 410-50281-2**

**Date Collected: 08/06/21 10:50**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

**Client Sample ID: 7551-P5 (3)**

**Lab Sample ID: 410-50281-2**

**Date Collected: 08/06/21 10:50**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 93.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:04       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 17:23       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 17:44       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 15:04       | MDP5    | ELLE |

**Client Sample ID: Pipe 75 (2)**

**Lab Sample ID: 410-50281-3**

**Date Collected: 08/06/21 11:00**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 75 (2)

Lab Sample ID: 410-50281-3

Date Collected: 08/06/21 11:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 12:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 15:08       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 18:06       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 15:08       | MDP5    | ELLE |

## Client Sample ID: 7551-P1 (3)

Lab Sample ID: 410-50281-4

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: 7551-P1 (3)

Lab Sample ID: 410-50281-4

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 58.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 13:36       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 18:29       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 15:12       | MDP5    | ELLE |

## Client Sample ID: Pipe 87 (2)

Lab Sample ID: 410-50281-5

Date Collected: 08/06/21 11:30

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: Pipe 87 (2)

Lab Sample ID: 410-50281-5

Date Collected: 08/06/21 11:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 12:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 15:28       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 18:52       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 15:16       | MDP5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: 7551-P2 (3)**

**Lab Sample ID: 410-50281-6**

Date Collected: 08/06/21 11:45

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

**Client Sample ID: 7551-P2 (3)**

**Lab Sample ID: 410-50281-6**

Date Collected: 08/06/21 11:45

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 72.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:28       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 16:38       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 19:15       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        | DL  | 5               | 158947       | 08/11/21 08:54       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:05       | WJM9    | ELLE |

**Client Sample ID: Pipe 77 (2)**

**Lab Sample ID: 410-50281-7**

Date Collected: 08/06/21 09:55

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: Pipe 77 (2)**

**Lab Sample ID: 410-50281-7**

Date Collected: 08/06/21 09:55

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 73.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 12:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 15:49       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 19:37       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 13:58       | MDP5    | ELLE |

**Client Sample ID: Pipe 76 (2)**

**Lab Sample ID: 410-50281-8**

Date Collected: 08/06/21 12:00

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 76 (2)

Lab Sample ID: 410-50281-8

Date Collected: 08/06/21 12:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 91.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:28       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 13:59       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 20:00       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:09       | WJM9    | ELLE |

## Client Sample ID: 7551-P3 (3)

Lab Sample ID: 410-50281-9

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: 7551-P3 (3)

Lab Sample ID: 410-50281-9

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 71.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:28       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 14:22       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 20:23       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:19       | WJM9    | ELLE |

## Client Sample ID: Trip Blank

Lab Sample ID: 410-50281-10

Date Collected: 08/06/21 00:00

Matrix: Water

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 158775       | 08/10/21 20:55       | LCW8    | ELLE |

## Client Sample ID: Pipe 53 (2)

Lab Sample ID: 410-50281-11

Date Collected: 08/05/21 14:15

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 53 (2)

Lab Sample ID: 410-50281-11

Date Collected: 08/05/21 14:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 74.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:28       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 14:44       | UCB5    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 157883       | 08/08/21 12:28       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 159034       | 08/11/21 13:48       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 159422       | 08/12/21 07:05       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:22       | WJM9    | ELLE |

## Client Sample ID: 1044-P4 (3)

Lab Sample ID: 410-50281-12

Date Collected: 08/05/21 14:30

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: 1044-P4 (3)

Lab Sample ID: 410-50281-12

Date Collected: 08/05/21 14:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 73.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:28       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 17:00       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 05:12       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:26       | WJM9    | ELLE |

## Client Sample ID: Pipe 55 (2)

Lab Sample ID: 410-50281-13

Date Collected: 08/05/21 14:40

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: Pipe 55 (2)

Lab Sample ID: 410-50281-13

Date Collected: 08/05/21 14:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 69.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 16:10       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 05:35       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 09:44       | WJM9    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: Pipe 78 (2)**

**Lab Sample ID: 410-50281-14**

**Date Collected: 08/06/21 09:05**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

**Client Sample ID: Pipe 78 (2)**

**Lab Sample ID: 410-50281-14**

**Date Collected: 08/06/21 09:05**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 59.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 16:31       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 20:45       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:29       | WJM9    | ELLE |

**Client Sample ID: Pipe 79 (2)**

**Lab Sample ID: 410-50281-15**

**Date Collected: 08/06/21 09:40**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

**Client Sample ID: Pipe 79 (2)**

**Lab Sample ID: 410-50281-15**

**Date Collected: 08/06/21 09:40**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 90.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 16:52       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | DL  |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | DL  | 500             | 159518       | 08/12/21 12:03       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 21:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:33       | WJM9    | ELLE |

**Client Sample ID: 7551-P7 (3)**

**Lab Sample ID: 410-50281-16**

**Date Collected: 08/06/21 09:45**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: 7551-P7 (3)

## Lab Sample ID: 410-50281-16

Date Collected: 08/06/21 09:45

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 17:12       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 21:31       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:37       | WJM9    | ELLE |

## Client Sample ID: Pipe 82 (2)

## Lab Sample ID: 410-50281-17

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: Pipe 82 (2)

## Lab Sample ID: 410-50281-17

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 70.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 17:46       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159307       | 08/11/21 17:48       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159845       | 08/12/21 22:25       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:40       | WJM9    | ELLE |

## Client Sample ID: 7551-P6 (3)

## Lab Sample ID: 410-50281-18

Date Collected: 08/06/21 10:15

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157763       | 08/07/21 00:30       | X4C8    | ELLE |

## Client Sample ID: 7551-P6 (3)

## Lab Sample ID: 410-50281-18

Date Collected: 08/06/21 10:15

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 66.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 17:33       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | DL  |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | DL  | 500             | 159518       | 08/12/21 12:24       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 22:16       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157948       | 08/09/21 03:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159680       | 08/12/21 10:44       | WJM9    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: Pipe 81 (2)**

**Lab Sample ID: 410-50281-19**

**Date Collected: 08/06/21 10:25**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: Pipe 81 (2)**

**Lab Sample ID: 410-50281-19**

**Date Collected: 08/06/21 10:25**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 80.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159034       | 08/11/21 14:10       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 12:18       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:02       | MDP5    | ELLE |

**Client Sample ID: Pipe 83 (2)**

**Lab Sample ID: 410-50281-20**

**Date Collected: 08/06/21 10:30**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: Pipe 83 (2)**

**Lab Sample ID: 410-50281-20**

**Date Collected: 08/06/21 10:30**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

**Percent Solids: 82.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 15:30       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 12:40       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:06       | MDP5    | ELLE |

**Client Sample ID: Pipe 80 (2)**

**Lab Sample ID: 410-50281-21**

**Date Collected: 08/06/21 10:40**

**Matrix: Solid**

**Date Received: 08/06/21 15:23**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 80 (2)

Lab Sample ID: 410-50281-21

Date Collected: 08/06/21 10:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 87.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159034       | 08/11/21 14:56       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 13:03       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:10       | MDP5    | ELLE |

## Client Sample ID: Pipe 50 (2)

Lab Sample ID: 410-50281-22

Date Collected: 08/05/21 12:50

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

## Client Sample ID: Pipe 50 (2)

Lab Sample ID: 410-50281-22

Date Collected: 08/05/21 12:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 79.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 15:52       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 05:57       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:20       | MDP5    | ELLE |

## Client Sample ID: Pipe 49 (2)

Lab Sample ID: 410-50281-23

Date Collected: 08/05/21 12:55

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

## Client Sample ID: Pipe 49 (2)

Lab Sample ID: 410-50281-23

Date Collected: 08/05/21 12:55

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 83.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 12:04       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 18:08       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 06:20       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:23       | MDP5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: Pipe 45 (2)**

**Lab Sample ID: 410-50281-24**

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: Pipe 45 (2)**

**Lab Sample ID: 410-50281-24**

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 84.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 17:54       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159422       | 08/12/21 06:43       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:26       | MDP5    | ELLE |

**Client Sample ID: Pipe 47 (2)**

**Lab Sample ID: 410-50281-25**

Date Collected: 08/05/21 13:05

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: Pipe 47 (2)**

**Lab Sample ID: 410-50281-25**

Date Collected: 08/05/21 13:05

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 86.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 18:15       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 159422       | 08/12/21 07:27       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:33       | MDP5    | ELLE |

**Client Sample ID: Pipe 46 (2)**

**Lab Sample ID: 410-50281-26**

Date Collected: 08/05/21 13:10

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 46 (2)

Lab Sample ID: 410-50281-26

Date Collected: 08/05/21 13:10

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 81.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157884       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159050       | 08/11/21 18:36       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158484       | 08/10/21 09:43       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 159422       | 08/12/21 07:50       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:37       | MDP5    | ELLE |

## Client Sample ID: Pipe 48 (2)

Lab Sample ID: 410-50281-27

Date Collected: 08/05/21 13:20

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

## Client Sample ID: Pipe 48 (2)

Lab Sample ID: 410-50281-27

Date Collected: 08/05/21 13:20

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 85.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 18:31       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 22:38       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:30       | MDP5    | ELLE |

## Client Sample ID: 1043-P5 (3)

Lab Sample ID: 410-50281-28

Date Collected: 08/05/21 13:25

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

## Client Sample ID: 1043-P5 (3)

Lab Sample ID: 410-50281-28

Date Collected: 08/05/21 13:25

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 79.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159034       | 08/11/21 14:33       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 23:01       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 13:38       | MDP5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

**Client Sample ID: 1043-P4 (3)**

**Lab Sample ID: 410-50281-29**

Date Collected: 08/05/21 13:30

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: 1043-P4 (3)**

**Lab Sample ID: 410-50281-29**

Date Collected: 08/05/21 13:30

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 77.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 19:39       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 23:23       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:41       | MDP5    | ELLE |

**Client Sample ID: 1043-P1 (3)**

**Lab Sample ID: 410-50281-30**

Date Collected: 08/05/21 13:40

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

**Client Sample ID: 1043-P1 (3)**

**Lab Sample ID: 410-50281-30**

Date Collected: 08/05/21 13:40

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 78.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 158553       | 08/10/21 18:54       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/10/21 23:46       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:44       | MDP5    | ELLE |

**Client Sample ID: Pipe 51 (2)**

**Lab Sample ID: 410-50281-31**

Date Collected: 08/05/21 13:50

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

## Client Sample ID: Pipe 51 (2)

Lab Sample ID: 410-50281-31

Date Collected: 08/05/21 13:50

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 80.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         | RA  |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 159083       | 08/11/21 22:47       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159034       | 08/11/21 15:18       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/11/21 00:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:51       | MDP5    | ELLE |

## Client Sample ID: Pipe 52 (2)

Lab Sample ID: 410-50281-32

Date Collected: 08/05/21 14:00

Matrix: Solid

Date Received: 08/06/21 15:23

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 157749       | 08/06/21 22:34       | OEL4    | ELLE |

## Client Sample ID: Pipe 52 (2)

Lab Sample ID: 410-50281-32

Date Collected: 08/05/21 14:00

Matrix: Solid

Date Received: 08/06/21 15:23

Percent Solids: 72.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 157883       | 08/08/21 11:15       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159034       | 08/11/21 15:41       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158485       | 08/10/21 09:37       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158700       | 08/11/21 00:31       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 157947       | 08/09/21 03:32       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159302       | 08/11/21 14:47       | MDP5    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50281-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-50281-1   | DUP-3            | Solid  | 08/06/21 00:00 | 08/06/21 15:23 |
| 410-50281-2   | 7551-P5 (3)      | Solid  | 08/06/21 10:50 | 08/06/21 15:23 |
| 410-50281-3   | Pipe 75 (2)      | Solid  | 08/06/21 11:00 | 08/06/21 15:23 |
| 410-50281-4   | 7551-P1 (3)      | Solid  | 08/06/21 11:15 | 08/06/21 15:23 |
| 410-50281-5   | Pipe 87 (2)      | Solid  | 08/06/21 11:30 | 08/06/21 15:23 |
| 410-50281-6   | 7551-P2 (3)      | Solid  | 08/06/21 11:45 | 08/06/21 15:23 |
| 410-50281-7   | Pipe 77 (2)      | Solid  | 08/06/21 09:55 | 08/06/21 15:23 |
| 410-50281-8   | Pipe 76 (2)      | Solid  | 08/06/21 12:00 | 08/06/21 15:23 |
| 410-50281-9   | 7551-P3 (3)      | Solid  | 08/06/21 12:15 | 08/06/21 15:23 |
| 410-50281-10  | Trip Blank       | Water  | 08/06/21 00:00 | 08/06/21 15:23 |
| 410-50281-11  | Pipe 53 (2)      | Solid  | 08/05/21 14:15 | 08/06/21 15:23 |
| 410-50281-12  | 1044-P4 (3)      | Solid  | 08/05/21 14:30 | 08/06/21 15:23 |
| 410-50281-13  | Pipe 55 (2)      | Solid  | 08/05/21 14:40 | 08/06/21 15:23 |
| 410-50281-14  | Pipe 78 (2)      | Solid  | 08/06/21 09:05 | 08/06/21 15:23 |
| 410-50281-15  | Pipe 79 (2)      | Solid  | 08/06/21 09:40 | 08/06/21 15:23 |
| 410-50281-16  | 7551-P7 (3)      | Solid  | 08/06/21 09:45 | 08/06/21 15:23 |
| 410-50281-17  | Pipe 82 (2)      | Solid  | 08/06/21 10:10 | 08/06/21 15:23 |
| 410-50281-18  | 7551-P6 (3)      | Solid  | 08/06/21 10:15 | 08/06/21 15:23 |
| 410-50281-19  | Pipe 81 (2)      | Solid  | 08/06/21 10:25 | 08/06/21 15:23 |
| 410-50281-20  | Pipe 83 (2)      | Solid  | 08/06/21 10:30 | 08/06/21 15:23 |
| 410-50281-21  | Pipe 80 (2)      | Solid  | 08/06/21 10:40 | 08/06/21 15:23 |
| 410-50281-22  | Pipe 50 (2)      | Solid  | 08/05/21 12:50 | 08/06/21 15:23 |
| 410-50281-23  | Pipe 49 (2)      | Solid  | 08/05/21 12:55 | 08/06/21 15:23 |
| 410-50281-24  | Pipe 45 (2)      | Solid  | 08/05/21 13:00 | 08/06/21 15:23 |
| 410-50281-25  | Pipe 47 (2)      | Solid  | 08/05/21 13:05 | 08/06/21 15:23 |
| 410-50281-26  | Pipe 46 (2)      | Solid  | 08/05/21 13:10 | 08/06/21 15:23 |
| 410-50281-27  | Pipe 48 (2)      | Solid  | 08/05/21 13:20 | 08/06/21 15:23 |
| 410-50281-28  | 1043-P5 (3)      | Solid  | 08/05/21 13:25 | 08/06/21 15:23 |
| 410-50281-29  | 1043-P4 (3)      | Solid  | 08/05/21 13:30 | 08/06/21 15:23 |
| 410-50281-30  | 1043-P1 (3)      | Solid  | 08/05/21 13:40 | 08/06/21 15:23 |
| 410-50281-31  | Pipe 51 (2)      | Solid  | 08/05/21 13:50 | 08/06/21 15:23 |
| 410-50281-32  | Pipe 52 (2)      | Solid  | 08/05/21 14:00 | 08/06/21 15:23 |


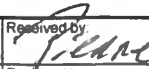

1000

**Environment Testing  
America**

Ver 06/08/202



**Environment Testing  
America**

|   |  |                                   |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
|---|--|-----------------------------------|--|--|--|---------------------------------|--|--|---|--|--|---|--|--|--|---------------------------|--|--|--|--------------------|--|--|--|
| <b>Client Information</b>   |  | Sampler<br>SP/IA/OK/ZS            |  | Lab PM<br>Carter, Amek A   |  | Camer Tracking No(s)            |  | COC No<br>410-30581-9562 5                                 |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Client Contact<br>Mark Schaeffer  |  | Phone<br>4844673657               |  | E-Mail<br>Loran Carter@eurofinset.com  |  | State of Origin<br>PA           |  | Page<br>Page 5 of 5  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Company<br>Stantec Consulting Corp.   |  | PWSID:                            |  | <b>Analysis Requested</b>  |  |                                 |  |  | Job #   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Address<br>1060 Andrew Drive Suite 140  |  | Due Date Requested:               |  | <div>Field Filtered Sample (Yes or No)</div> <div>8260C - PA Combo of Leaded and Unleaded Gasoline</div> <div>6010C, 8270D, Moisture</div> <div>8260C_UST - PA Combo of Leaded and Unleaded Gasoline</div> <div>Total Number of Containers</div> |  |                                 |  |  | <b>Preservation Codes:</b><br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Z - other (specify) |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| City<br>West Chester  |  | TAT Requested (days):             |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| State, Zip<br>PA, 19380   |  | Compliance Project: Δ Yes Δ No    |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Phone   |  | PO #:<br>Purchase Order Requested |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Email:<br>mark.schaeffer@stantec.com  |  | WO #:                             |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Project Name<br>PBF Logistics   |  | Project #<br>41007459             |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Site:<br>51st Street Terminal   |  | SSOW#:                            |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| <b>Sample Identification</b>  |  | Sample Date                       |  | Sample Time  |  | Sample Type<br>(C=Comp, G=grab) |  | Matrix<br>(W=water, B=solid, D=soil/oil, BT=Tissue, A=Air) |   | <b>Special Instructions/Note:</b>  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 59 (2)   |  | 8/5/21                            |  | 1415   |  | G                               |  | Water  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| 1044-P4 (3)   |  | 8/5/21                            |  | 1430   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 55 (2)   |  | 8/5/21                            |  | 1440   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 78 (2)   |  | 8/6/21                            |  | 0905   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 79 (2)   |  | 8/6/21                            |  | 0940   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| 7551-P7 (3)   |  | 8/6/21                            |  | 0945   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 82 (2)   |  | 8/6/21                            |  | 1010   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| 7551-P6 (3)   |  | 8/6/21                            |  | 1015   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 81 (2)   |  | 8/6/21                            |  | 1025   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 83 (2)   |  | 8/6/21                            |  | 1030   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Pipe 80 (2)   |  | 8/6/21                            |  | 1040   |  | G                               |  | Solid  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| <b>Possible Hazard Identification</b><br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |                                   |  |  |  |                                 |  |  |   | <b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Deliverable Requested: I, II, III, IV, Other (specify)  |  |                                   |  |  |  |                                 |  |  |   | Special Instructions/QC Requirements:  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Empty Kit Relinquished by   |  |                                   |  | Date:  |  |                                 |  | Time:  |   |  |  | Method of Shipment:   |  |  |  |                           |  |  |  |                    |  |  |  |
| Relinquished by    |  |                                   |  | Date/Time<br>8/6/21 1240   |  |                                 |  | Company<br>Stantec   |   |  |  | Received by  |  |  |  | Date/Time<br>8/6/21 12:40 |  |  |  | Company            |  |  |  |
| Relinquished by J. Pence  |  |                                   |  | Date/Time<br>8/6/21 1510   |  |                                 |  | Company  |   |  |  | Received by   |  |  |  | Date/Time                 |  |  |  | Company            |  |  |  |
| Relinquished by   |  |                                   |  | Date/Time  |  |                                 |  | Company  |   |  |  | Received by  |  |  |  | Date/Time<br>8/6/21 1523  |  |  |  | Company<br>Stantec |  |  |  |
| Custody Seals Intact:<br>Δ Yes Δ No   |  | Custody Seal No.:                 |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |
| Code: Temperature(s) °C and Other Remarks:<br>1.6-1.9   |  |                                   |  |  |  |                                 |  |  |   |  |  |   |  |  |  |                           |  |  |  |                    |  |  |  |

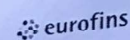
## Environment Testing America

8/13/2021

## Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike  
Lancaster, PA 17601  
Phone: 717-656-2300 Fax: 717-656-2681

## Chain of Custody Record

Environment Testing  
America

## Client Information

Client Contact:  
Mark Schaeffer  
Company:  
Stantec Consulting Corp.  
Address:  
1060 Andrew Drive Suite 140  
City:  
West Chester  
State, Zip:  
PA, 19380  
Phone:  
Email:  
mark.schaeffer@stantec.com  
Project Name:  
PBF Logistics  
Site:  
51st Street Terminal

Sampler: SP/IA/OK/ES  
Phone: 484/673657

Lab PM:  
Carter, Amek A  
E-Mail:  
Loran.Carter@eurofinset.com

Carrier Tracking No(s):

COC No:  
410-30581-9562.5

State of Origin: PA

Page:  
Page 5 of 5  
Job #:

## Analysis Requested

## Preservation Codes:

A - HCL  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - MeOH  
G - Amchlor  
H - Ascorbic Acid  
I - Ice  
J - DI Water  
K - EDTA  
L - EDA  
M - Hexane  
N - None  
O - AsNaO2  
P - Na2O4S  
Q - Na2SO3  
R - Na2S2O3  
S - H2SO4  
T - TSP Dodecahydrate  
U - Acetone  
V - MCAA  
W - pH 4-5  
Z - other (specify)

Other:

## Special Instructions/Note:

## Sample Identification

| Sample Identification     | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, G=glass, BT=tissue, A=air) | Analysis Requested | Total Number of Containers |
|---------------------------|-------------|-------------|------------------------------|--|--------------------|----------------------------|
| Pipe 59 (2) - Pipe 53 (2) | 8/5/21      | 1415        | G                            | Solid  | X X X              |                            |
| 1044-P4 (3)               | 8/5/21      | 1430        | G                            | Solid  | X X X              |                            |
| Pipe 55 (2)               | 8/5/21      | 1440        | G                            | Solid  | X X X              |                            |
| Pipe 78 (2)               | 8/6/21      | 0905        | G                            | Solid  | X X X              |                            |
| Pipe 79 (2)               | 8/6/21      | 0940        | G                            | Solid  | X X X              |                            |
| 7551-P7 (3)               | 8/6/21      | 0945        | G                            | Solid  | X X X              |                            |
| Pipe 82 (2)               | 8/6/21      | 1010        | G                            | Solid  | X X X              |                            |
| 7551-P6 (3)               | 8/6/21      | 1015        | G                            | Solid  | X X X              |                            |
| Pipe 81 (2)               | 8/6/21      | 1025        | G                            | Solid  | X X X              |                            |
| Pipe 83 (2)               | 8/6/21      | 1030        | G                            | Solid  | X X X              |                            |
| Pipe 80 (2)               | 8/6/21      | 1040        | G                            | Solid  | X X X              |                            |

## Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

## Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Date:

Time:

Method of Shipment:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Custody Seals Intact: [Custody Seal No.]

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-50281-1

**Login Number: 50281**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

**List Number: 1**

**Creator: Lugardo, Tamara**

| Question  | Answer | Comment                             |
|---|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.  | True   |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.   | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.   | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.  | N/A    |                                     |
| COC is present.   | True   |                                     |
| COC is filled out in ink and legible.   | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.  | True   |                                     |
| Containers are not broken or leaking.   | True   |                                     |
| Sample collection date/times are provided.  | True   |                                     |
| Appropriate sample containers are used.   | True   |                                     |
| Sample bottles are completely filled.   | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.  | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?   | True   |                                     |
| Sample Preservation Verified.   | N/A    |                                     |
| Residual Chlorine Checked.  | N/A    |                                     |
| Sample custody seals are intact.  | N/A    |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-50503-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/16/2021 12:53:34 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter  
Project Manager  
8/16/2021 12:53:34 PM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| FL        | MS and/or MSD recovery below control limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

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### Job ID: 410-50503-1

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Laboratory: Eurofins Lancaster Laboratories Env, LLC

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#### Narrative

#### Job Narrative 410-50503-1

##### Receipt

The samples were received on 8/9/2021 4:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C

##### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Pipe 86 (2) (410-50503-3), Pipe 74 (2) (410-50503-4) and Pipe 72 (2) (410-50503-9). Elevated reporting limits (RLs) are provided.

Method 8260C: Elevated reporting limits are provided for the following sample due to insufficient sample provided for analysis: Pipe 85 (2) (410-50503-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Client Sample ID: Pipe 85 (2)

Lab Sample ID: 410-50503-1

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 320    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 590    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 560    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 750    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 460    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Chrysene             | 650    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Fluorene             | 490    |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Phenanthrene         | 910    |           | 22  | 5.3  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Pyrene               | 1200   |           | 22  | 4.4  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Lead                 | 180    |           | 1.7 | 0.67 | mg/Kg | 1       | ✖ | 6010C  | Total/NA  |

### Client Sample ID: 7551-P4 (3)

Lab Sample ID: 410-50503-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 34     |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 120    |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 110    |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 120    |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 64     |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Chrysene             | 110    |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Fluorene             | 14     | J         | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Phenanthrene         | 130    |           | 19  | 4.7  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Pyrene               | 190    |           | 19  | 3.9  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Lead                 | 29     |           | 1.6 | 0.64 | mg/Kg | 1       | ✖ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 86 (2)

Lab Sample ID: 410-50503-3

| Analyte                   | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene                   | 53     | J         | 410 | 49   | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Isopropylbenzene          | 48     | J         | 410 | 32   | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Anthracene                | 3200   |           | 23  | 4.6  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene      | 4500   |           | 23  | 4.6  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Fluorene                  | 850    |           | 23  | 4.6  | ug/Kg | 1       | ✖ | 8270D  | Total/NA  |
| Benzo[a]anthracene - DL   | 12000  |           | 230 | 46   | ug/Kg | 10      | ✖ | 8270D  | Total/NA  |
| Benzo[a]pyrene - DL       | 7900   |           | 230 | 46   | ug/Kg | 10      | ✖ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene - DL | 9900   |           | 230 | 46   | ug/Kg | 10      | ✖ | 8270D  | Total/NA  |
| Chrysene - DL             | 10000  |           | 230 | 46   | ug/Kg | 10      | ✖ | 8270D  | Total/NA  |
| Phenanthrene - DL         | 11000  |           | 230 | 55   | ug/Kg | 10      | ✖ | 8270D  | Total/NA  |
| Pyrene - DL               | 16000  |           | 230 | 46   | ug/Kg | 10      | ✖ | 8270D  | Total/NA  |
| Lead                      | 540    |           | 1.5 | 0.58 | mg/Kg | 1       | ✖ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 74 (2)

Lab Sample ID: 410-50503-4

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Ethylbenzene           | 61     | J         | 370 | 30  | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 66     | J         | 370 | 37  | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Toluene                | 280    | J         | 370 | 45  | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Xylenes, Total         | 280    | J         | 750 | 100 | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Benzene                | 55     | J         | 370 | 37  | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Naphthalene            | 430    |           | 370 | 150 | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 92     | J         | 370 | 37  | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |
| Isopropylbenzene       | 670    |           | 370 | 30  | ug/Kg | 50      | ✖ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Client Sample ID: Pipe 74 (2) (Continued)

Lab Sample ID: 410-50503-4

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 1500   |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 4600   |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 3800   |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 4300   |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 2600   |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 3800   |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 510    |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 4500   |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene - DL          | 6500   |           | 110 | 22   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Lead                 | 160    |           | 1.4 | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 84 (2)

Lab Sample ID: 410-50503-5

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 0.43   | J         | 4.7 | 0.37 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 0.78   | J         | 4.7 | 0.47 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 2.5    | J         | 4.7 | 0.56 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 2.3    | J         | 9.3 | 1.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 8.6    |           | 4.7 | 0.47 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 3.2    | J         | 4.7 | 1.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 0.77   | J         | 4.7 | 0.47 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 1500   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 3400   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 2600   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 3100   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 1600   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 2800   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 610    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene - DL      | 4800   |           | 180 | 43   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene - DL            | 5500   |           | 180 | 36   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Lead                   | 51     |           | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: UNK-ST-S (3)

Lab Sample ID: 410-50503-6

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene                | 0.85   | J         | 7.9 | 0.63 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene      | 6.6    | J         | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                     | 2.8    | J         | 7.9 | 0.94 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total              | 7.2    | J         | 16  | 2.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 1.8    | J         | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                     | 1.8    | J         | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene                 | 3.3    | J         | 7.9 | 3.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene      | 12     |           | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 24     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 25     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 15     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 23     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 22     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 200    |           | 26  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 98     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 39     |           | 2.2 | 0.87 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Client Sample ID: UNK-ST-N (3)

### Lab Sample ID: 410-50503-7

| Analyte                   | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene              | 310    | J         | 430 | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene    | 1100   |           | 430 | 43   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                   | 740    |           | 430 | 51   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total            | 2400   |           | 860 | 120  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                   | 560    |           | 430 | 43   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene               | 3400   |           | 430 | 170  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene    | 2800   |           | 430 | 43   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene          | 120    | J         | 430 | 34   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[g,h,i]perylene      | 2700   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                  | 3800   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene - DL           | 11000  |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene - DL   | 8700   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene - DL       | 5300   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene - DL | 6800   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Chrysene - DL             | 8000   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene - DL         | 29000  |           | 210 | 51   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene - DL               | 15000  |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Lead                      | 65     |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 71 (2)

### Lab Sample ID: 410-50503-8

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 350    | J         | 490 | 39   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 970    |           | 490 | 49   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 170    | J         | 490 | 59   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 1200   |           | 990 | 140  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1900   |           | 490 | 49   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 580    |           | 490 | 39   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 89     |           | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 75     |           | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 92     |           | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 86     |           | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 130    |           | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 730    | FL        | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 680    | FL        | 27  | 6.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 970    |           | 27  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 130    |           | 2.3 | 0.93 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 72 (2)

### Lab Sample ID: 410-50503-9

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 88     | J         | 370 | 37  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 230    | J         | 370 | 44  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 330    | J         | 730 | 100 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 49     | J         | 370 | 37  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 180    | J         | 370 | 37  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 38     |           | 22  | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 150    |           | 22  | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 160    |           | 22  | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 190    |           | 22  | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 130    |           | 22  | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 150    |           | 22  | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Client Sample ID: Pipe 72 (2) (Continued)

Lab Sample ID: 410-50503-9

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Fluorene     | 14     | J         | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene | 110    |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 220    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 160    |           | 1.8 | 0.72 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 70 (2)

Lab Sample ID: 410-50503-10

| Analyte                | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 80     | J         | 520  | 41   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1100   |           | 520  | 52   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 320    | J         | 520  | 62   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 590    | J         | 1000 | 140  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1500   |           | 520  | 52   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 46     |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 56     |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 69     |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 58     |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 76     |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 590    |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 760    |           | 27   | 6.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 470    |           | 27   | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 750    |           | 2.3  | 0.92 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Dup-4

Lab Sample ID: 410-50503-11

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 100    | J         | 470 | 37   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1300   |           | 470 | 47   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 450    | J         | 470 | 56   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 770    | J         | 930 | 130  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 68     | J         | 470 | 47   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 2100   |           | 470 | 47   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 41     | J         | 470 | 37   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 69     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 47     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 79     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 54     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 150    |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 1200   |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 1900   |           | 24  | 5.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 780    |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 210    |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Trip Blank

Lab Sample ID: 410-50503-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 85 (2)

Lab Sample ID: 410-50503-1

Date Collected: 08/06/21 12:45

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 74.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 1000 | 83  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| 1,2-Dichloroethane          | ND     |           | 1000 | 130 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| 1,3,5-Trimethylbenzene      | ND     |           | 1000 | 100 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Toluene                     | ND     |           | 1000 | 130 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Xylenes, Total              | ND     |           | 2100 | 290 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Methyl tertiary butyl ether | ND     |           | 1000 | 100 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Benzene                     | ND     |           | 1000 | 100 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Naphthalene                 | ND     |           | 1000 | 420 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| 1,2,4-Trimethylbenzene      | ND     |           | 1000 | 100 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Isopropylbenzene            | ND     |           | 1000 | 83  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| 1,2-Dibromoethane           | ND     |           | 1000 | 83  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 14:49 | 100     |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| 4-Bromofluorobenzene (Surr)  | 115       |           | 50 - 131 | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/10/21 09:23 | 08/12/21 14:49 | 100     |
| Toluene-d8 (Surr)            | 91        |           | 52 - 141 | 08/10/21 09:23 | 08/12/21 14:49 | 100     |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 320    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Benzo[a]anthracene   | 590    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Benzo[a]pyrene       | 560    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Benzo[b]fluoranthene | 750    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Benzo[g,h,i]perylene | 460    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Chrysene             | 650    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Fluorene             | 490    |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Phenanthrene         | 910    |           | 22 | 5.3 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Pyrene               | 1200   |           | 22 | 4.4 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:25 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 75        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 13:25 | 1       |
| p-Terphenyl-d14 (Surr)  | 73        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 13:25 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 180    |           | 1.7 | 0.67 | mg/Kg | ✱ | 08/09/21 20:35 | 08/12/21 13:14 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.6   |           | 1.0 | 1.0 | %    | — |          | 08/09/21 22:09 | 1       |

Client Sample ID: 7551-P4 (3)

Lab Sample ID: 410-50503-2

Date Collected: 08/06/21 12:50

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 85.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 4.6 | 0.37 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| 1,2-Dichloroethane | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: 7551-P4 (3)

Lab Sample ID: 410-50503-2

Date Collected: 08/06/21 12:50

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 85.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 4.6      | 0.46 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Toluene                      | ND        |           | 4.6      | 0.55 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Xylenes, Total               | ND        |           | 9.1      | 1.3  | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 4.6      | 0.46 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Benzene                      | ND        |           | 4.6      | 0.46 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Naphthalene                  | ND        |           | 4.6      | 1.8  | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 4.6      | 0.46 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Isopropylbenzene             | ND        |           | 4.6      | 0.37 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| 1,2-Dibromoethane            | ND        |           | 4.6      | 0.37 | ug/Kg | ✱ | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 |      |       |   | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 |      |       |   | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 |      |       |   | 08/10/21 09:23 | 08/11/21 16:48 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 |      |       |   | 08/10/21 09:23 | 08/11/21 16:48 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 34        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Benzo[a]anthracene      | 120       |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Benzo[a]pyrene          | 110       |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Benzo[b]fluoranthene    | 120       |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Benzo[g,h,i]perylene    | 64        |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Chrysene                | 110       |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Fluorene                | 14 J      |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Phenanthrene            | 130       |           | 19       | 4.7 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Pyrene                  | 190       |           | 19       | 3.9 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 92        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| Nitrobenzene-d5 (Surr)  | 77        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 13:48 | 1       |
| p-Terphenyl-d14 (Surr)  | 93        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 13:48 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 29     |           | 1.6 | 0.64 | mg/Kg | ✱ | 08/09/21 20:35 | 08/12/21 13:24 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.3   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

Client Sample ID: Pipe 86 (2)

Lab Sample ID: 410-50503-3

Date Collected: 08/06/21 13:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 71.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 410 | 32  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| 1,2-Dichloroethane     | ND     |           | 410 | 49  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| 1,3,5-Trimethylbenzene | ND     |           | 410 | 41  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Toluene                | 53 J   |           | 410 | 49  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 86 (2)

Lab Sample ID: 410-50503-3

Date Collected: 08/06/21 13:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 71.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 810 | 110 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Methyl tertiary butyl ether | ND     |           | 410 | 41  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Benzene                     | ND     |           | 410 | 41  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Naphthalene                 | ND     |           | 410 | 160 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 410 | 41  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Isopropylbenzene            | 48     | J         | 410 | 32  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| 1,2-Dibromoethane           | ND     |           | 410 | 32  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:10 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 74        |           | 54 - 135 | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| 4-Bromofluorobenzene (Surr)  | 66        |           | 50 - 131 | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Dibromofluoromethane (Surr)  | 73        |           | 50 - 141 | 08/10/21 09:23 | 08/12/21 15:10 | 50      |
| Toluene-d8 (Surr)            | 68        |           | 52 - 141 | 08/10/21 09:23 | 08/12/21 15:10 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 3200   |           | 23 | 4.6 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 14:11 | 1       |
| Benzo[g,h,i]perylene | 4500   |           | 23 | 4.6 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 14:11 | 1       |
| Fluorene             | 850    |           | 23 | 4.6 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 14:11 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 14:11 | 1       |
| Nitrobenzene-d5 (Surr)  | 59        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 14:11 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 14:11 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]anthracene   | 12000  |           | 230 | 46  | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| Benzo[a]pyrene       | 7900   |           | 230 | 46  | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| Benzo[b]fluoranthene | 9900   |           | 230 | 46  | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| Chrysene             | 10000  |           | 230 | 46  | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| Phenanthrene         | 11000  |           | 230 | 55  | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| Pyrene               | 16000  |           | 230 | 46  | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 23:35 | 10      |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 75        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| Nitrobenzene-d5 (Surr)  | 58        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 23:35 | 10      |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 23:35 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 540    |           | 1.5 | 0.58 | mg/Kg | ✱ | 08/09/21 20:35 | 08/12/21 13:27 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.5   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 74 (2)

Lab Sample ID: 410-50503-4

Date Collected: 08/06/21 13:15

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 74.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 61     | J         | 370 | 30  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| 1,2-Dichloroethane          | ND     |           | 370 | 45  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| 1,3,5-Trimethylbenzene      | 66     | J         | 370 | 37  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Toluene                     | 280    | J         | 370 | 45  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Xylenes, Total              | 280    | J         | 750 | 100 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Methyl tertiary butyl ether | ND     |           | 370 | 37  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Benzene                     | 55     | J         | 370 | 37  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Naphthalene                 | 430    |           | 370 | 150 | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| 1,2,4-Trimethylbenzene      | 92     | J         | 370 | 37  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Isopropylbenzene            | 670    |           | 370 | 30  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| 1,2-Dibromoethane           | ND     |           | 370 | 30  | ug/Kg | ✱ | 08/10/21 09:23 | 08/12/21 15:31 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 68        |           | 54 - 135 | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| 4-Bromofluorobenzene (Surr)  | 61        |           | 50 - 131 | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Dibromofluoromethane (Surr)  | 60        |           | 50 - 141 | 08/10/21 09:23 | 08/12/21 15:31 | 50      |
| Toluene-d8 (Surr)            | 63        |           | 52 - 141 | 08/10/21 09:23 | 08/12/21 15:31 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 1500   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Benzo[a]anthracene   | 4600   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Benzo[a]pyrene       | 3800   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Benzo[b]fluoranthene | 4300   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Benzo[g,h,i]perylene | 2600   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Chrysene             | 3800   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Fluorene             | 510    |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Phenanthrene         | 4500   |           | 22 | 5.3 | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 14:27 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 77        |           | 39 - 100 | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  | 08/12/21 18:24 | 08/13/21 14:27 | 1       |
| p-Terphenyl-d14 (Surr)  | 77        |           | 45 - 108 | 08/12/21 18:24 | 08/13/21 14:27 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Pyrene  | 6500   |           | 110 | 22  | ug/Kg | ✱ | 08/12/21 18:24 | 08/13/21 23:44 | 5       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 72        |           | 39 - 100 | 08/12/21 18:24 | 08/13/21 23:44 | 5       |
| Nitrobenzene-d5 (Surr)  | 62        |           | 32 - 97  | 08/12/21 18:24 | 08/13/21 23:44 | 5       |
| p-Terphenyl-d14 (Surr)  | 77        |           | 45 - 108 | 08/12/21 18:24 | 08/13/21 23:44 | 5       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 160    |           | 1.4 | 0.57 | mg/Kg | ✱ | 08/09/21 20:35 | 08/12/21 13:37 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.0   |           | 1.0 | 1.0 | %    | - |          | 08/09/21 22:09 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 84 (2)

Lab Sample ID: 410-50503-5

Date Collected: 08/06/21 13:25

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 91.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 0.43   | J         | 4.7 | 0.37 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.56 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| 1,3,5-Trimethylbenzene      | 0.78   | J         | 4.7 | 0.47 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Toluene                     | 2.5    | J         | 4.7 | 0.56 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Xylenes, Total              | 2.3    | J         | 9.3 | 1.3  | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Benzene                     | 8.6    |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Naphthalene                 | 3.2    | J         | 4.7 | 1.9  | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| 1,2,4-Trimethylbenzene      | 0.77   | J         | 4.7 | 0.47 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Isopropylbenzene            | ND     |           | 4.7 | 0.37 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| 1,2-Dibromoethane           | ND     |           | 4.7 | 0.37 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 17:11 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/10/21 10:02 | 08/11/21 17:11 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/10/21 10:02 | 08/11/21 17:11 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 1500   |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Benzo[a]anthracene   | 3400   |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Benzo[a]pyrene       | 2600   |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Benzo[b]fluoranthene | 3100   |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Benzo[g,h,i]perylene | 1600   |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Chrysene             | 2800   |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Fluorene             | 610    |           | 18 | 3.6 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 14:56 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 14:56 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 14:56 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Phenanthrene | 4800   |           | 180 | 43  | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 23:58 | 10      |
| Pyrene       | 5500   |           | 180 | 36  | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 23:58 | 10      |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 23:58 | 10      |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 23:58 | 10      |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 23:58 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 51     |           | 1.5 | 0.59 | mg/Kg | ☼ | 08/10/21 04:11 | 08/12/21 13:40 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.1    |           | 1.0 | 1.0 | %    | - |          | 08/09/21 22:09 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: UNK-ST-S (3)

Lab Sample ID: 410-50503-6

Date Collected: 08/06/21 13:45

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 63.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 0.85   | J         | 7.9 | 0.63 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.9 | 0.94 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| 1,3,5-Trimethylbenzene      | 6.6    | J         | 7.9 | 0.79 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Toluene                     | 2.8    | J         | 7.9 | 0.94 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Xylenes, Total              | 7.2    | J         | 16  | 2.2  | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Methyl tertiary butyl ether | 1.8    | J         | 7.9 | 0.79 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Benzene                     | 1.8    | J         | 7.9 | 0.79 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Naphthalene                 | 3.3    | J         | 7.9 | 3.1  | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| 1,2,4-Trimethylbenzene      | 12     |           | 7.9 | 0.79 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Isopropylbenzene            | ND     |           | 7.9 | 0.63 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.9 | 0.63 | ug/Kg | ☼ | 08/10/21 10:02 | 08/11/21 16:02 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Dibromofluoromethane (Surr)  | 17        | S1-       | 50 - 141 | 08/10/21 10:02 | 08/11/21 16:02 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/10/21 10:02 | 08/11/21 16:02 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 24     | J         | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Benzo[a]anthracene   | 25     | J         | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Benzo[a]pyrene       | 15     | J         | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Benzo[b]fluoranthene | 23     | J         | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Chrysene             | 22     | J         | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Fluorene             | ND     |           | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Phenanthrene         | 200    |           | 26 | 6.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Pyrene               | 98     |           | 26 | 5.2 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 15:19 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 58        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| Nitrobenzene-d5 (Surr)  | 44        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 15:19 | 1       |
| p-Terphenyl-d14 (Surr)  | 75        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 15:19 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 39     |           | 2.2 | 0.87 | mg/Kg | ☼ | 08/10/21 04:11 | 08/12/21 13:43 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 36.4   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

Client Sample ID: UNK-ST-N (3)

Lab Sample ID: 410-50503-7

Date Collected: 08/06/21 14:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 78.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | 310    | J         | 430 | 34  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| 1,2-Dichloroethane | ND     |           | 430 | 51  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: UNK-ST-N (3)

Lab Sample ID: 410-50503-7

Date Collected: 08/06/21 14:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 78.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 1100      |           | 430      | 43  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Toluene                      | 740       |           | 430      | 51  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Xylenes, Total               | 2400      |           | 860      | 120 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 430      | 43  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Benzene                      | 560       |           | 430      | 43  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Naphthalene                  | 3400      |           | 430      | 170 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| 1,2,4-Trimethylbenzene       | 2800      |           | 430      | 43  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Isopropylbenzene             | 120 J     |           | 430      | 34  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| 1,2-Dibromoethane            | ND        |           | 430      | 34  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 71        |           | 54 - 135 |     |       |   | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| 4-Bromofluorobenzene (Surr)  | 64        |           | 50 - 131 |     |       |   | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Dibromofluoromethane (Surr)  | 19 S1-    |           | 50 - 141 |     |       |   | 08/10/21 10:02 | 08/12/21 15:51 | 50      |
| Toluene-d8 (Surr)            | 66        |           | 52 - 141 |     |       |   | 08/10/21 10:02 | 08/12/21 15:51 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene    | 2700      |           | 21       | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 15:42 | 1       |
| Fluorene                | 3800      |           | 21       | 4.2 | ug/Kg | ✱ | 08/10/21 17:56 | 08/11/21 15:42 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 86        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 15:42 | 1       |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 15:42 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 15:42 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 11000     |           | 210      | 42  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Benzo[a]anthracene      | 8700      |           | 210      | 42  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Benzo[a]pyrene          | 5300      |           | 210      | 42  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Benzo[b]fluoranthene    | 6800      |           | 210      | 42  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Chrysene                | 8000      |           | 210      | 42  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Phenanthrene            | 29000     |           | 210      | 51  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Pyrene                  | 15000     |           | 210      | 42  | ug/Kg | ✱ | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/12/21 00:20 | 10      |
| p-Terphenyl-d14 (Surr)  | 91        |           | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/12/21 00:20 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 65     |           | 1.6 | 0.64 | mg/Kg | ✱ | 08/10/21 04:11 | 08/12/21 13:46 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.7   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 71 (2)

Lab Sample ID: 410-50503-8

Date Collected: 08/09/21 11:30

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 62.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 350    | J         | 490 | 39  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| 1,2-Dichloroethane          | ND     |           | 490 | 59  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| 1,3,5-Trimethylbenzene      | 970    |           | 490 | 49  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Toluene                     | 170    | J         | 490 | 59  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Xylenes, Total              | 1200   |           | 990 | 140 | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Methyl tertiary butyl ether | ND     |           | 490 | 49  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Benzene                     | ND     |           | 490 | 49  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Naphthalene                 | ND     |           | 490 | 200 | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| 1,2,4-Trimethylbenzene      | 1900   |           | 490 | 49  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Isopropylbenzene            | 580    |           | 490 | 39  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| 1,2-Dibromoethane           | ND     |           | 490 | 39  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:12 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 70        |           | 54 - 135 | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| 4-Bromofluorobenzene (Surr)  | 61        |           | 50 - 131 | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Dibromofluoromethane (Surr)  | 63        |           | 50 - 141 | 08/10/21 10:02 | 08/12/21 16:12 | 50      |
| Toluene-d8 (Surr)            | 60        |           | 52 - 141 | 08/10/21 10:02 | 08/12/21 16:12 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Benzo[a]anthracene   | 89     |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Benzo[a]pyrene       | 75     |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Benzo[b]fluoranthene | 92     |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Benzo[g,h,i]perylene | 86     |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Chrysene             | 130    |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Fluorene             | 730    | FL        | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Phenanthrene         | 680    | FL        | 27 | 6.4 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Pyrene               | 970    |           | 27 | 5.3 | ug/Kg | ☼ | 08/10/21 17:56 | 08/11/21 16:04 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 63        |           | 39 - 100 | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| Nitrobenzene-d5 (Surr)  | 79        |           | 32 - 97  | 08/10/21 17:56 | 08/11/21 16:04 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 | 08/10/21 17:56 | 08/11/21 16:04 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 130    |           | 2.3 | 0.93 | mg/Kg | ☼ | 08/10/21 04:11 | 08/12/21 13:50 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 37.9   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

Client Sample ID: Pipe 72 (2)

Lab Sample ID: 410-50503-9

Date Collected: 08/09/21 11:55

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 74.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 370 | 29  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| 1,2-Dichloroethane | ND     |           | 370 | 44  | ug/Kg | ☼ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 72 (2)

Lab Sample ID: 410-50503-9

Date Collected: 08/09/21 11:55

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 74.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 88        | J         | 370      | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Toluene                      | 230       | J         | 370      | 44  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Xylenes, Total               | 330       | J         | 730      | 100 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 370      | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Benzene                      | 49        | J         | 370      | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Naphthalene                  | ND        |           | 370      | 150 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| 1,2,4-Trimethylbenzene       | 180       | J         | 370      | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Isopropylbenzene             | ND        |           | 370      | 29  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| 1,2-Dibromoethane            | ND        |           | 370      | 29  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 69        |           | 54 - 135 |     |       |   | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| 4-Bromofluorobenzene (Surr)  | 62        |           | 50 - 131 |     |       |   | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Dibromofluoromethane (Surr)  | 64        |           | 50 - 141 |     |       |   | 08/10/21 10:02 | 08/12/21 16:33 | 50      |
| Toluene-d8 (Surr)            | 63        |           | 52 - 141 |     |       |   | 08/10/21 10:02 | 08/12/21 16:33 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 38        |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Benzo[a]anthracene      | 150       |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Benzo[a]pyrene          | 160       |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Benzo[b]fluoranthene    | 190       |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Benzo[g,h,i]perylene    | 130       |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Chrysene                | 150       |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Fluorene                | 14        | J         | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Phenanthrene            | 110       |           | 22       | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Pyrene                  | 220       |           | 22       | 4.5 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 |     |       |   | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  |     |       |   | 08/11/21 09:56 | 08/12/21 19:55 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 |     |       |   | 08/11/21 09:56 | 08/12/21 19:55 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 160    |           | 1.8 | 0.72 | mg/Kg | ✱ | 08/10/21 04:11 | 08/12/21 13:56 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.0   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

Client Sample ID: Pipe 70 (2)

Lab Sample ID: 410-50503-10

Date Collected: 08/09/21 12:15

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 62.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 80     | J         | 520 | 41  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| 1,2-Dichloroethane     | ND     |           | 520 | 62  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| 1,3,5-Trimethylbenzene | 1100   |           | 520 | 52  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Toluene                | 320    | J         | 520 | 62  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Pipe 70 (2)

Lab Sample ID: 410-50503-10

Date Collected: 08/09/21 12:15

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 62.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                       | Result      | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|------|-----|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>         | <b>590</b>  | <b>J</b>  | 1000 | 140 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Methyl tertiary butyl ether   | ND          |           | 520  | 52  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Benzene                       | ND          |           | 520  | 52  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Naphthalene                   | ND          |           | 520  | 210 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| <b>1,2,4-Trimethylbenzene</b> | <b>1500</b> |           | 520  | 52  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Isopropylbenzene              | ND          |           | 520  | 41  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| 1,2-Dibromoethane             | ND          |           | 520  | 41  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 16:54 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 68        |           | 54 - 135 | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| 4-Bromofluorobenzene (Surr)  | 61        |           | 50 - 131 | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Dibromofluoromethane (Surr)  | 61        |           | 50 - 141 | 08/10/21 10:02 | 08/12/21 16:54 | 50      |
| Toluene-d8 (Surr)            | 61        |           | 52 - 141 | 08/10/21 10:02 | 08/12/21 16:54 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene                  | ND         |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>46</b>  |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>56</b>  |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>69</b>  |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>58</b>  |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Chrysene</b>             | <b>76</b>  |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Fluorene</b>             | <b>590</b> |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Phenanthrene</b>         | <b>760</b> |           | 27 | 6.4 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| <b>Pyrene</b>               | <b>470</b> |           | 27 | 5.3 | ug/Kg | ✱ | 08/11/21 09:56 | 08/12/21 20:18 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 66        |           | 39 - 100 | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  | 08/11/21 09:56 | 08/12/21 20:18 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 08/11/21 09:56 | 08/12/21 20:18 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>750</b> |           | 2.3 | 0.92 | mg/Kg | ✱ | 08/10/21 04:11 | 08/12/21 13:59 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>37.7</b> |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

Client Sample ID: Dup-4

Lab Sample ID: 410-50503-11

Date Collected: 08/09/21 00:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 68.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                       | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Ethylbenzene</b>           | <b>100</b>  | <b>J</b>  | 470 | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| 1,2-Dichloroethane            | ND          |           | 470 | 56  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| <b>1,3,5-Trimethylbenzene</b> | <b>1300</b> |           | 470 | 47  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| <b>Toluene</b>                | <b>450</b>  | <b>J</b>  | 470 | 56  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| <b>Xylenes, Total</b>         | <b>770</b>  | <b>J</b>  | 930 | 130 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| Methyl tertiary butyl ether   | ND          |           | 470 | 47  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Dup-4

Lab Sample ID: 410-50503-11

Date Collected: 08/09/21 00:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 68.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzene                | 68     | J         | 470 | 47  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| Naphthalene            | ND     |           | 470 | 190 | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| 1,2,4-Trimethylbenzene | 2100   |           | 470 | 47  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| Isopropylbenzene       | 41     | J         | 470 | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| 1,2-Dibromoethane      | ND     |           | 470 | 37  | ug/Kg | ✱ | 08/10/21 10:02 | 08/12/21 17:14 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 66        |           | 54 - 135 | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| 4-Bromofluorobenzene (Surr)  | 61        |           | 50 - 131 | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| Dibromofluoromethane (Surr)  | 55        |           | 50 - 141 | 08/10/21 10:02 | 08/12/21 17:14 | 50      |
| Toluene-d8 (Surr)            | 60        |           | 52 - 141 | 08/10/21 10:02 | 08/12/21 17:14 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Benzo[a]anthracene   | 69     |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Benzo[a]pyrene       | 47     |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Benzo[b]fluoranthene | 79     |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Benzo[g,h,i]perylene | 54     |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Chrysene             | 150    |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Fluorene             | 1200   |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Phenanthrene         | 1900   |           | 24 | 5.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Pyrene               | 780    |           | 24 | 4.8 | ug/Kg | ✱ | 08/11/21 09:56 | 08/13/21 00:23 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 60        |           | 39 - 100 | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  | 08/11/21 09:56 | 08/13/21 00:23 | 1       |
| p-Terphenyl-d14 (Surr)  | 73        |           | 45 - 108 | 08/11/21 09:56 | 08/13/21 00:23 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 210    |           | 1.6 | 0.64 | mg/Kg | ✱ | 08/10/21 04:11 | 08/12/21 13:53 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 31.5   |           | 1.0 | 1.0 | %    |   |          | 08/09/21 22:09 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-50503-12

Date Collected: 08/09/21 00:00

Matrix: Water

Date Received: 08/09/21 16:02

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/12/21 15:18 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/12/21 15:18 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/12/21 15:18 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/12/21 15:18 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/12/21 15:18 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/12/21 15:18 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/12/21 15:18 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/12/21 15:18 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

Client Sample ID: Trip Blank

Lab Sample ID: 410-50503-12

Date Collected: 08/09/21 00:00

Matrix: Water

Date Received: 08/09/21 16:02

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Naphthalene                  | ND        |           | 5.0      | 1.0  | ug/L |   |          | 08/12/21 15:18 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.0      | 1.0  | ug/L |   |          | 08/12/21 15:18 | 1       |
| Isopropylbenzene             | ND        |           | 5.0      | 0.30 | ug/L |   |          | 08/12/21 15:18 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 80 - 120 |      |      |   |          | 08/12/21 15:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 80 - 120 |      |      |   |          | 08/12/21 15:18 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 80 - 120 |      |      |   |          | 08/12/21 15:18 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 80 - 120 |      |      |   |          | 08/12/21 15:18 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-50503-1                        | Pipe 85 (2)            | 111  | 115             | 100              | 91              |
| 410-50503-2                        | 7551-P4 (3)            | 113  | 92              | 104              | 97              |
| 410-50503-3                        | Pipe 86 (2)            | 74   | 66              | 73               | 68              |
| 410-50503-4                        | Pipe 74 (2)            | 68   | 61              | 60               | 63              |
| 410-50503-5                        | Pipe 84 (2)            | 109  | 95              | 102              | 97              |
| 410-50503-6                        | UNK-ST-S (3)           | 111  | 97              | 17 S1-           | 98              |
| 410-50503-7                        | UNK-ST-N (3)           | 71   | 64              | 19 S1-           | 66              |
| 410-50503-8                        | Pipe 71 (2)            | 70   | 61              | 63               | 60              |
| 410-50503-9                        | Pipe 72 (2)            | 69   | 62              | 64               | 63              |
| 410-50503-10                       | Pipe 70 (2)            | 68   | 61              | 61               | 61              |
| 410-50503-11                       | Dup-4                  | 66   | 61              | 55               | 60              |
| LCS 410-159083/4                   | Lab Control Sample     | 101  | 97              | 99               | 100             |
| LCS 410-159518/4                   | Lab Control Sample     | 97   | 87              | 95               | 91              |
| LCS 410-160023/4                   | Lab Control Sample     | 92   | 83              | 93               | 89              |
| LCSD 410-159083/5                  | Lab Control Sample Dup | 101  | 97              | 99               | 101             |
| LCSD 410-159518/5                  | Lab Control Sample Dup | 99   | 86              | 96               | 90              |
| LCSD 410-160023/5                  | Lab Control Sample Dup | 95   | 84              | 95               | 89              |
| MB 410-159083/7                    | Method Blank           | 102  | 93              | 101              | 99              |
| MB 410-159518/7                    | Method Blank           | 103  | 86              | 98               | 92              |
| MB 410-160023/7                    | Method Blank           | 105  | 87              | 99               | 93              |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-50503-12                       | Trip Blank             | 97   | 103             | 102              | 93              |
| LCS 410-159657/4                   | Lab Control Sample     | 98   | 104             | 99               | 95              |
| LCSD 410-159657/5                  | Lab Control Sample Dup | 98   | 101             | 99               | 93              |
| MB 410-159657/6                    | Method Blank           | 97   | 103             | 101              | 94              |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|---------------|------------------|--|----------------|--------------------|
|               |                  | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-50503-1   | Pipe 85 (2)      | 75   | 66             | 73                 |

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50503-1

Project/Site: PBF Logistics

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-50503-2        | 7551-P4 (3)        | 92   | 77             | 93                 |
| 410-50503-3        | Pipe 86 (2)        | 74   | 59             | 78                 |
| 410-50503-3 - DL   | Pipe 86 (2)        | 75   | 58             | 80                 |
| 410-50503-4        | Pipe 74 (2)        | 77   | 67             | 77                 |
| 410-50503-4 - DL   | Pipe 74 (2)        | 72   | 62             | 77                 |
| 410-50503-5        | Pipe 84 (2)        | 82   | 66             | 85                 |
| 410-50503-5 - DL   | Pipe 84 (2)        | 82   | 66             | 88                 |
| 410-50503-6        | UNK-ST-S (3)       | 58   | 44             | 75                 |
| 410-50503-7        | UNK-ST-N (3)       | 86   | 75             | 89                 |
| 410-50503-7 - DL   | UNK-ST-N (3)       | 89   | 72             | 91                 |
| 410-50503-8        | Pipe 71 (2)        | 63   | 79             | 78                 |
| 410-50503-8 MS     | Pipe 71 (2)        | 64   | 84             | 83                 |
| 410-50503-8 MSD    | Pipe 71 (2)        | 66   | 86             | 72                 |
| 410-50503-9        | Pipe 72 (2)        | 81   | 69             | 85                 |
| 410-50503-10       | Pipe 70 (2)        | 66   | 68             | 79                 |
| 410-50503-11       | Dup-4              | 60   | 61             | 73                 |
| LCS 410-158764/2-A | Lab Control Sample | 98   | 79             | 92                 |
| LCS 410-158969/2-A | Lab Control Sample | 72   | 56             | 85                 |
| LCS 410-159833/2-A | Lab Control Sample | 93   | 74             | 92                 |
| MB 410-158764/1-A  | Method Blank       | 91   | 79             | 94                 |
| MB 410-158969/1-A  | Method Blank       | 77   | 58             | 96                 |
| MB 410-159833/1-A  | Method Blank       | 87   | 69             | 90                 |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-159083/7

Matrix: Solid

Analysis Batch: 159083

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/11/21 14:49 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/11/21 14:49 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102          |              | 54 - 135 |          | 08/11/21 14:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93           |              | 50 - 131 |          | 08/11/21 14:49 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/11/21 14:49 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 52 - 141 |          | 08/11/21 14:49 | 1       |

Lab Sample ID: LCS 410-159083/4

Matrix: Solid

Analysis Batch: 159083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.7       |               | ug/Kg |   | 93   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.2       |               | ug/Kg |   | 101  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.5       |               | ug/Kg |   | 93   | 73 - 120     |
| Toluene                     | 20.0        | 18.7       |               | ug/Kg |   | 94   | 80 - 120     |
| Xylenes, Total              | 60.0        | 56.2       |               | ug/Kg |   | 94   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 21.0       |               | ug/Kg |   | 105  | 72 - 120     |
| Benzene                     | 20.0        | 19.9       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 20.0        | 19.0       |               | ug/Kg |   | 95   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.8       |               | ug/Kg |   | 94   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 18.3       |               | ug/Kg |   | 92   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 20.4       |               | ug/Kg |   | 102  | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-159083/5

Matrix: Solid

Analysis Batch: 159083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 18.7        |                | ug/Kg |   | 94   | 78 - 120     | 0   | 30        |
| 1,2-Dichloroethane | 20.0        | 20.2        |                | ug/Kg |   | 101  | 71 - 128     | 0   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-159083/5

Matrix: Solid

Analysis Batch: 159083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 18.5        |                | ug/Kg |   | 93   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 18.7        |                | ug/Kg |   | 94   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 60.0        | 56.6        |                | ug/Kg |   | 94   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.9        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| Benzene                     | 20.0        | 19.7        |                | ug/Kg |   | 98   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 18.7        |                | ug/Kg |   | 94   | 48 - 130     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.8        |                | ug/Kg |   | 94   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 20.0        | 18.5        |                | ug/Kg |   | 92   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 20.0        | 20.2        |                | ug/Kg |   | 101  | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 101            |                | 52 - 141 |

Lab Sample ID: MB 410-159518/7

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/12/21 11:12 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/12/21 11:12 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 54 - 135 |          | 08/12/21 11:12 | 50      |
| 4-Bromofluorobenzene (Surr)  | 86           |              | 50 - 131 |          | 08/12/21 11:12 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/12/21 11:12 | 50      |
| Toluene-d8 (Surr)            | 92           |              | 52 - 141 |          | 08/12/21 11:12 | 50      |

Lab Sample ID: LCS 410-159518/4

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 1000        | 958        |               | ug/Kg |   | 96   | 78 - 120     |
| 1,2-Dichloroethane     | 1000        | 935        |               | ug/Kg |   | 93   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 875        |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                | 1000        | 969        |               | ug/Kg |   | 97   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-159518/4

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 3000        | 2950       |               | ug/Kg |   | 98   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 960        |               | ug/Kg |   | 96   | 72 - 120     |
| Benzene                     | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| Naphthalene                 | 1000        | 919        |               | ug/Kg |   | 92   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 874        |               | ug/Kg |   | 87   | 73 - 120     |
| Isopropylbenzene            | 1000        | 991        |               | ug/Kg |   | 99   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 979        |               | ug/Kg |   | 98   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 95            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 91            |               | 52 - 141 |

Lab Sample ID: LCSD 410-159518/5

Matrix: Solid

Analysis Batch: 159518

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 941         |                | ug/Kg |   | 94   | 78 - 120     | 2   | 30        |
| 1,2-Dichloroethane          | 1000        | 950         |                | ug/Kg |   | 95   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 873         |                | ug/Kg |   | 87   | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 961         |                | ug/Kg |   | 96   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2910        |                | ug/Kg |   | 97   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 980         |                | ug/Kg |   | 98   | 72 - 120     | 2   | 30        |
| Benzene                     | 1000        | 1000        |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 924         |                | ug/Kg |   | 92   | 48 - 130     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 866         |                | ug/Kg |   | 87   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 1000        | 981         |                | ug/Kg |   | 98   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 1000        | 970         |                | ug/Kg |   | 97   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 86             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 96             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 90             |                | 52 - 141 |

Lab Sample ID: MB 410-160023/7

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-160023/7

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Naphthalene            | ND        |              | 250 | 100 | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Isopropylbenzene       | ND        |              | 250 | 20  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,2-Dibromoethane      | ND        |              | 250 | 20  | ug/Kg |   |          | 08/13/21 10:30 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/13/21 10:30 | 50      |
| 4-Bromofluorobenzene (Surr)  | 87           |              | 50 - 131 |          | 08/13/21 10:30 | 50      |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |          | 08/13/21 10:30 | 50      |
| Toluene-d8 (Surr)            | 93           |              | 52 - 141 |          | 08/13/21 10:30 | 50      |

Lab Sample ID: LCS 410-160023/4

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 930        |               | ug/Kg |   | 93   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 902        |               | ug/Kg |   | 90   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 870        |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                     | 1000        | 941        |               | ug/Kg |   | 94   | 80 - 120     |
| Xylenes, Total              | 3000        | 2890       |               | ug/Kg |   | 96   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 949        |               | ug/Kg |   | 95   | 72 - 120     |
| Benzene                     | 1000        | 974        |               | ug/Kg |   | 97   | 80 - 120     |
| Naphthalene                 | 1000        | 908        |               | ug/Kg |   | 91   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 861        |               | ug/Kg |   | 86   | 73 - 120     |
| Isopropylbenzene            | 1000        | 966        |               | ug/Kg |   | 97   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 957        |               | ug/Kg |   | 96   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 92            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 83            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 93            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 89            |               | 52 - 141 |

Lab Sample ID: LCSD 410-160023/5

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 922         |                | ug/Kg |   | 92   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 919         |                | ug/Kg |   | 92   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 851         |                | ug/Kg |   | 85   | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 950         |                | ug/Kg |   | 95   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2860        |                | ug/Kg |   | 95   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 952         |                | ug/Kg |   | 95   | 72 - 120     | 0   | 30        |
| Benzene                     | 1000        | 979         |                | ug/Kg |   | 98   | 80 - 120     | 0   | 30        |
| Naphthalene                 | 1000        | 913         |                | ug/Kg |   | 91   | 48 - 130     | 1   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-160023/5

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                      | Spike Added    | LCSD Result    | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|----------------|----------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene       | 1000           | 855            |                | ug/Kg |   | 86   | 73 - 120     | 1   | 30        |
| Isopropylbenzene             | 1000           | 964            |                | ug/Kg |   | 96   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane            | 1000           | 956            |                | ug/Kg |   | 96   | 76 - 120     | 0   | 30        |
| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits         |       |   |      |              |     |           |
| 1,2-Dichloroethane-d4 (Surr) | 95             |                | 54 - 135       |       |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr)  | 84             |                | 50 - 131       |       |   |      |              |     |           |
| Dibromofluoromethane (Surr)  | 95             |                | 50 - 141       |       |   |      |              |     |           |
| Toluene-d8 (Surr)            | 89             |                | 52 - 141       |       |   |      |              |     |           |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-159657/6

Matrix: Water

Analysis Batch: 159657

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                      | MB Result    | MB Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane            | ND           |              | 1.0      | 0.30 | ug/L |   |          | 08/12/21 13:37 | 1       |
| Ethylbenzene                 | ND           |              | 1.0      | 0.40 | ug/L |   |          | 08/12/21 13:37 | 1       |
| 1,2-Dichloroethane           | ND           |              | 1.0      | 0.30 | ug/L |   |          | 08/12/21 13:37 | 1       |
| 1,3,5-Trimethylbenzene       | ND           |              | 5.0      | 0.30 | ug/L |   |          | 08/12/21 13:37 | 1       |
| Toluene                      | ND           |              | 1.0      | 0.30 | ug/L |   |          | 08/12/21 13:37 | 1       |
| Xylenes, Total               | ND           |              | 6.0      | 1.4  | ug/L |   |          | 08/12/21 13:37 | 1       |
| Methyl tertiary butyl ether  | ND           |              | 1.0      | 0.20 | ug/L |   |          | 08/12/21 13:37 | 1       |
| Benzene                      | ND           |              | 1.0      | 0.30 | ug/L |   |          | 08/12/21 13:37 | 1       |
| Naphthalene                  | ND           |              | 5.0      | 1.0  | ug/L |   |          | 08/12/21 13:37 | 1       |
| 1,2,4-Trimethylbenzene       | ND           |              | 5.0      | 1.0  | ug/L |   |          | 08/12/21 13:37 | 1       |
| Isopropylbenzene             | ND           |              | 5.0      | 0.30 | ug/L |   |          | 08/12/21 13:37 | 1       |
| Surrogate                    | MB %Recovery | MB Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 97           |              | 80 - 120 |      |      |   |          | 08/12/21 13:37 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103          |              | 80 - 120 |      |      |   |          | 08/12/21 13:37 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 80 - 120 |      |      |   |          | 08/12/21 13:37 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 80 - 120 |      |      |   |          | 08/12/21 13:37 | 1       |

Lab Sample ID: LCS 410-159657/4

Matrix: Water

Analysis Batch: 159657

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromoethane           | 20.0        | 16.6       |               | ug/L |   | 83   | 77 - 120     |
| Ethylbenzene                | 20.0        | 17.1       |               | ug/L |   | 85   | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 17.0       |               | ug/L |   | 85   | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 15.9       |               | ug/L |   | 80   | 75 - 120     |
| Toluene                     | 20.0        | 16.7       |               | ug/L |   | 84   | 80 - 120     |
| Xylenes, Total              | 60.0        | 50.6       |               | ug/L |   | 84   | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 17.7       |               | ug/L |   | 89   | 69 - 122     |
| Benzene                     | 20.0        | 18.3       |               | ug/L |   | 91   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-159657/4

Matrix: Water

Analysis Batch: 159657

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Naphthalene            | 20.0        | 16.1       |               | ug/L |   | 80   | 53 - 124     |
| 1,2,4-Trimethylbenzene | 20.0        | 15.9       |               | ug/L |   | 80   | 75 - 120     |
| Isopropylbenzene       | 20.0        | 16.5       |               | ug/L |   | 83   | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 104           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 99            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 95            |               | 80 - 120 |

Lab Sample ID: LCSD 410-159657/5

Matrix: Water

Analysis Batch: 159657

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| 1,2-Dibromoethane           | 20.0        | 16.5        |                | ug/L |   | 83   | 77 - 120     | 1   | 30    |
| Ethylbenzene                | 20.0        | 17.2        |                | ug/L |   | 86   | 80 - 120     | 1   | 30    |
| 1,2-Dichloroethane          | 20.0        | 17.5        |                | ug/L |   | 88   | 73 - 124     | 3   | 30    |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.4        |                | ug/L |   | 82   | 75 - 120     | 3   | 30    |
| Toluene                     | 20.0        | 16.7        |                | ug/L |   | 83   | 80 - 120     | 0   | 30    |
| Xylenes, Total              | 60.0        | 51.0        |                | ug/L |   | 85   | 80 - 120     | 1   | 30    |
| Methyl tertiary butyl ether | 20.0        | 18.2        |                | ug/L |   | 91   | 69 - 122     | 3   | 30    |
| Benzene                     | 20.0        | 18.4        |                | ug/L |   | 92   | 80 - 120     | 1   | 30    |
| Naphthalene                 | 20.0        | 16.5        |                | ug/L |   | 83   | 53 - 124     | 3   | 30    |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.2        |                | ug/L |   | 81   | 75 - 120     | 2   | 30    |
| Isopropylbenzene            | 20.0        | 16.7        |                | ug/L |   | 83   | 80 - 120     | 1   | 30    |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98             |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 99             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 93             |                | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-158764/1-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158764

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-158764/1-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158764

| Analyte                 | MB<br>Result | MB<br>Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|-----------------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND           |                 | 17       | 3.3 | ug/Kg |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Surrogate               | %Recovery    | Qualifier       | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 91           |                 | 39 - 100 |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| Nitrobenzene-d5 (Surr)  | 79           |                 | 32 - 97  |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |
| p-Terphenyl-d14 (Surr)  | 94           |                 | 45 - 108 |     |       |   | 08/10/21 17:56 | 08/11/21 08:09 | 1       |

Lab Sample ID: LCS 410-158764/2-A

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158764

| Analyte                 | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Anthracene              | 1670           | 1650          |                  | ug/Kg |   | 99   | 75 - 120        |
| Benzo[a]anthracene      | 1670           | 1670          |                  | ug/Kg |   | 100  | 73 - 120        |
| Benzo[a]pyrene          | 1670           | 1720          |                  | ug/Kg |   | 103  | 80 - 123        |
| Benzo[b]fluoranthene    | 1670           | 1510          |                  | ug/Kg |   | 91   | 63 - 120        |
| Benzo[g,h,i]perylene    | 1670           | 1710          |                  | ug/Kg |   | 103  | 77 - 120        |
| Chrysene                | 1670           | 1630          |                  | ug/Kg |   | 98   | 66 - 120        |
| Fluorene                | 1670           | 1800          |                  | ug/Kg |   | 108  | 68 - 120        |
| Phenanthrene            | 1670           | 1610          |                  | ug/Kg |   | 97   | 74 - 120        |
| Pyrene                  | 1670           | 1640          |                  | ug/Kg |   | 98   | 70 - 120        |
| Surrogate               | %Recovery      | Qualifier     | Limits           |       |   |      |                 |
| 2-Fluorobiphenyl (Surr) | 98             |               | 39 - 100         |       |   |      |                 |
| Nitrobenzene-d5 (Surr)  | 79             |               | 32 - 97          |       |   |      |                 |
| p-Terphenyl-d14 (Surr)  | 92             |               | 45 - 108         |       |   |      |                 |

Lab Sample ID: 410-50503-8 MS

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Pipe 71 (2)

Prep Type: Total/NA

Prep Batch: 158764

| Analyte                 | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Anthracene              | ND               |                     | 2660           | 2690         |                 | ug/Kg | ✖ | 101  | 75 - 120        |
| Benzo[a]anthracene      | 89               |                     | 2660           | 2340         |                 | ug/Kg | ✖ | 85   | 73 - 120        |
| Benzo[a]pyrene          | 75               |                     | 2660           | 2600         |                 | ug/Kg | ✖ | 95   | 80 - 123        |
| Benzo[b]fluoranthene    | 92               |                     | 2660           | 2420         |                 | ug/Kg | ✖ | 87   | 63 - 120        |
| Benzo[g,h,i]perylene    | 86               |                     | 2660           | 2610         |                 | ug/Kg | ✖ | 95   | 77 - 120        |
| Chrysene                | 130              |                     | 2660           | 2300         |                 | ug/Kg | ✖ | 81   | 66 - 120        |
| Fluorene                | 730              | FL                  | 2660           | 2300         | FL              | ug/Kg | ✖ | 59   | 68 - 120        |
| Phenanthrene            | 680              | FL                  | 2660           | 2750         |                 | ug/Kg | ✖ | 78   | 74 - 120        |
| Pyrene                  | 970              |                     | 2660           | 2990         |                 | ug/Kg | ✖ | 76   | 70 - 120        |
| Surrogate               | %Recovery        | Qualifier           | Limits         |              |                 |       |   |      |                 |
| 2-Fluorobiphenyl (Surr) | 64               |                     | 39 - 100       |              |                 |       |   |      |                 |
| Nitrobenzene-d5 (Surr)  | 84               |                     | 32 - 97        |              |                 |       |   |      |                 |
| p-Terphenyl-d14 (Surr)  | 83               |                     | 45 - 108       |              |                 |       |   |      |                 |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-50503-8 MSD

Matrix: Solid

Analysis Batch: 158947

Client Sample ID: Pipe 71 (2)

Prep Type: Total/NA

Prep Batch: 158764

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Anthracene           | ND            |                  | 2670        | 2560       |               | ug/Kg | ✱ | 96   | 75 - 120     | 5   | 30        |
| Benzo[a]anthracene   | 89            |                  | 2670        | 2220       |               | ug/Kg | ✱ | 80   | 73 - 120     | 5   | 30        |
| Benzo[a]pyrene       | 75            |                  | 2670        | 2310       |               | ug/Kg | ✱ | 84   | 80 - 123     | 11  | 30        |
| Benzo[b]fluoranthene | 92            |                  | 2670        | 2270       |               | ug/Kg | ✱ | 81   | 63 - 120     | 7   | 30        |
| Benzo[g,h,i]perylene | 86            |                  | 2670        | 2370       |               | ug/Kg | ✱ | 85   | 77 - 120     | 10  | 30        |
| Chrysene             | 130           |                  | 2670        | 2130       |               | ug/Kg | ✱ | 75   | 66 - 120     | 8   | 30        |
| Fluorene             | 730           | FL               | 2670        | 2580       |               | ug/Kg | ✱ | 69   | 68 - 120     | 11  | 30        |
| Phenanthrene         | 680           | FL               | 2670        | 2640       | FL            | ug/Kg | ✱ | 73   | 74 - 120     | 4   | 30        |
| Pyrene               | 970           |                  | 2670        | 2840       |               | ug/Kg | ✱ | 70   | 70 - 120     | 5   | 30        |

| Surrogate               | MSD %Recovery | MSD Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 66            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 86            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 72            |               | 45 - 108 |

Lab Sample ID: MB 410-158969/1-A

Matrix: Solid

Analysis Batch: 159515

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 158969

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/11/21 09:56 | 08/12/21 10:00 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 77           |              | 39 - 100 | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 58           |              | 32 - 97  | 08/11/21 09:56 | 08/12/21 10:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 96           |              | 45 - 108 | 08/11/21 09:56 | 08/12/21 10:00 | 1       |

Lab Sample ID: LCS 410-158969/2-A

Matrix: Solid

Analysis Batch: 159515

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158969

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1310       |               | ug/Kg |   | 78   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1310       |               | ug/Kg |   | 78   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1340       |               | ug/Kg |   | 80   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1270       |               | ug/Kg |   | 76   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1420       |               | ug/Kg |   | 85   | 77 - 120     |
| Chrysene             | 1670        | 1310       |               | ug/Kg |   | 79   | 66 - 120     |
| Fluorene             | 1670        | 1240       |               | ug/Kg |   | 74   | 68 - 120     |
| Phenanthrene         | 1670        | 1330       |               | ug/Kg |   | 80   | 74 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-158969/2-A

Matrix: Solid

Analysis Batch: 159515

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 158969

| Analyte                 | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Pyrene                  | 1670          | 1230          |               | ug/Kg |   | 74   | 70 - 120     |
| Surrogate               | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 72            |               | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 56            |               | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 85            |               | 45 - 108      |       |   |      |              |

Lab Sample ID: MB 410-159833/1-A

Matrix: Solid

Analysis Batch: 160160

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159833

| Analyte                 | MB Result    | MB Qualifier | RL       | MDL            | Unit           | D       | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|----------------|----------------|---------|
| Anthracene              | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[a]anthracene      | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[a]pyrene          | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[b]fluoranthene    | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Benzo[g,h,i]perylene    | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Chrysene                | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Fluorene                | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Phenanthrene            | ND           |              | 17       | 4.0            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Pyrene                  | ND           |              | 17       | 3.3            | ug/Kg          |         | 08/12/21 18:24 | 08/13/21 11:50 | 1       |
| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |                |                |         |
| 2-Fluorobiphenyl (Surr) | 87           |              | 39 - 100 | 08/12/21 18:24 | 08/13/21 11:50 | 1       |                |                |         |
| Nitrobenzene-d5 (Surr)  | 69           |              | 32 - 97  | 08/12/21 18:24 | 08/13/21 11:50 | 1       |                |                |         |
| p-Terphenyl-d14 (Surr)  | 90           |              | 45 - 108 | 08/12/21 18:24 | 08/13/21 11:50 | 1       |                |                |         |

Lab Sample ID: LCS 410-159833/2-A

Matrix: Solid

Analysis Batch: 160160

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159833

| Analyte                 | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Anthracene              | 1670          | 1560          |               | ug/Kg |   | 94   | 75 - 120     |
| Benzo[a]anthracene      | 1670          | 1730          |               | ug/Kg |   | 104  | 73 - 120     |
| Benzo[a]pyrene          | 1670          | 1610          |               | ug/Kg |   | 97   | 80 - 123     |
| Benzo[b]fluoranthene    | 1670          | 1370          |               | ug/Kg |   | 82   | 63 - 120     |
| Benzo[g,h,i]perylene    | 1670          | 1760          |               | ug/Kg |   | 106  | 77 - 120     |
| Chrysene                | 1670          | 1750          |               | ug/Kg |   | 105  | 66 - 120     |
| Fluorene                | 1670          | 1710          |               | ug/Kg |   | 102  | 68 - 120     |
| Phenanthrene            | 1670          | 1530          |               | ug/Kg |   | 92   | 74 - 120     |
| Pyrene                  | 1670          | 1560          |               | ug/Kg |   | 94   | 70 - 120     |
| Surrogate               | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 93            |               | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 74            |               | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 92            |               | 45 - 108      |       |   |      |              |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-158390/1-A  
Matrix: Solid  
Analysis Batch: 159808

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 158390

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND           |                 | 1.5 | 0.60 | mg/Kg |   | 08/09/21 20:35 | 08/12/21 12:59 | 1       |

Lab Sample ID: LCS 410-158390/2-A  
Matrix: Solid  
Analysis Batch: 159808

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 158390

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Lead    | 5.00           | 5.18          |                  | mg/Kg |   | 104  | 80 - 120        |

Lab Sample ID: LCSD 410-158390/3-A  
Matrix: Solid  
Analysis Batch: 159808

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 158390

| Analyte | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|----------------|----------------|-------------------|-------|---|------|-----------------|-----|--------------|
| Lead    | 5.00           | 5.39           |                   | mg/Kg |   | 108  | 80 - 120        | 4   | 20           |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### GC/MS VOA

#### Prep Batch: 158571

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50503-2      | 7551-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-5      | Pipe 84 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-6 - RA | UNK-ST-S (3)     | Total/NA  | Solid  | 5035   |            |
| 410-50503-6      | UNK-ST-S (3)     | Total/NA  | Solid  | 5035   |            |

#### Prep Batch: 158572

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50503-1      | Pipe 85 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-3      | Pipe 86 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-4      | Pipe 74 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-7      | UNK-ST-N (3)     | Total/NA  | Solid  | 5035   |            |
| 410-50503-7 - RA | UNK-ST-N (3)     | Total/NA  | Solid  | 5035   |            |
| 410-50503-8      | Pipe 71 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-9      | Pipe 72 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-10     | Pipe 70 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50503-11     | Dup-4            | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 159083

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50503-2       | 7551-P4 (3)            | Total/NA  | Solid  | 8260C  | 158571     |
| 410-50503-5       | Pipe 84 (2)            | Total/NA  | Solid  | 8260C  | 158571     |
| 410-50503-6       | UNK-ST-S (3)           | Total/NA  | Solid  | 8260C  | 158571     |
| MB 410-159083/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159083/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159083/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 159518

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50503-1       | Pipe 85 (2)            | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-3       | Pipe 86 (2)            | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-4       | Pipe 74 (2)            | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-7       | UNK-ST-N (3)           | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-8       | Pipe 71 (2)            | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-9       | Pipe 72 (2)            | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-10      | Pipe 70 (2)            | Total/NA  | Solid  | 8260C  | 158572     |
| 410-50503-11      | Dup-4                  | Total/NA  | Solid  | 8260C  | 158572     |
| MB 410-159518/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159518/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159518/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 159582

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50503-6 - RA  | UNK-ST-S (3)           | Total/NA  | Solid  | 8260C  | 158571     |
| MB 410-159582/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159582/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159582/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 159657

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|-----------------|------------------|-----------|--------|-----------|------------|
| 410-50503-12    | Trip Blank       | Total/NA  | Water  | 8260C/UST |            |
| MB 410-159657/6 | Method Blank     | Total/NA  | Water  | 8260C/UST |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### GC/MS VOA (Continued)

#### Analysis Batch: 159657 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| LCS 410-159657/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-159657/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

#### Analysis Batch: 160023

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50503-7 - RA  | UNK-ST-N (3)           | Total/NA  | Solid  | 8260C  | 158572     |
| MB 410-160023/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160023/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160023/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 158764

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50503-1        | Pipe 85 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-2        | 7551-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-3 - DL   | Pipe 86 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-3        | Pipe 86 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-5        | Pipe 84 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-5 - DL   | Pipe 84 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-6        | UNK-ST-S (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50503-7 - DL   | UNK-ST-N (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50503-7        | UNK-ST-N (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50503-8        | Pipe 71 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-158764/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158764/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-50503-8 MS     | Pipe 71 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-8 MSD    | Pipe 71 (2)        | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 158947

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50503-1        | Pipe 85 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-2        | 7551-P4 (3)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-3        | Pipe 86 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-5        | Pipe 84 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-6        | UNK-ST-S (3)       | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-7        | UNK-ST-N (3)       | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-8        | Pipe 71 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| MB 410-158764/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158764     |
| LCS 410-158764/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-8 MS     | Pipe 71 (2)        | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-8 MSD    | Pipe 71 (2)        | Total/NA  | Solid  | 8270D  | 158764     |

#### Prep Batch: 158969

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50503-9        | Pipe 72 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-10       | Pipe 70 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-11       | Dup-4              | Total/NA  | Solid  | 3546   |            |
| MB 410-158969/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-158969/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### GC/MS Semi VOA

#### Analysis Batch: 159422

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50503-3 - DL | Pipe 86 (2)      | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-5 - DL | Pipe 84 (2)      | Total/NA  | Solid  | 8270D  | 158764     |
| 410-50503-7 - DL | UNK-ST-N (3)     | Total/NA  | Solid  | 8270D  | 158764     |

#### Analysis Batch: 159515

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-158969/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 158969     |
| LCS 410-158969/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 158969     |

#### Analysis Batch: 159578

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50503-9   | Pipe 72 (2)      | Total/NA  | Solid  | 8270D  | 158969     |
| 410-50503-10  | Pipe 70 (2)      | Total/NA  | Solid  | 8270D  | 158969     |

#### Prep Batch: 159833

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50503-4 - DL   | Pipe 74 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50503-4        | Pipe 74 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-159833/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-159833/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 159966

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50503-11  | Dup-4            | Total/NA  | Solid  | 8270D  | 158969     |

#### Analysis Batch: 160160

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50503-4        | Pipe 74 (2)        | Total/NA  | Solid  | 8270D  | 159833     |
| MB 410-159833/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 159833     |
| LCS 410-159833/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 159833     |

#### Analysis Batch: 160448

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50503-4 - DL | Pipe 74 (2)      | Total/NA  | Solid  | 8270D  | 159833     |

### Metals

#### Prep Batch: 158390

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-50503-1       | Pipe 85 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-2       | 7551-P4 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-3       | Pipe 86 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-4       | Pipe 74 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-5       | Pipe 84 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-6       | UNK-ST-S (3)     | Total/NA  | Solid  | 3050B  |            |
| 410-50503-7       | UNK-ST-N (3)     | Total/NA  | Solid  | 3050B  |            |
| 410-50503-8       | Pipe 71 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-9       | Pipe 72 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-10      | Pipe 70 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50503-11      | Dup-4            | Total/NA  | Solid  | 3050B  |            |
| MB 410-158390/1-A | Method Blank     | Total/NA  | Solid  | 3050B  |            |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Metals (Continued)

#### Prep Batch: 158390 (Continued)

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| LCS 410-158390/2-A  | Lab Control Sample     | Total/NA  | Solid  | 3050B  |            |
| LCSD 410-158390/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 159808

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 410-50503-1         | Pipe 85 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-2         | 7551-P4 (3)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-3         | Pipe 86 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-4         | Pipe 74 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-5         | Pipe 84 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-6         | UNK-ST-S (3)           | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-7         | UNK-ST-N (3)           | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-8         | Pipe 71 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-9         | Pipe 72 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-10        | Pipe 70 (2)            | Total/NA  | Solid  | 6010C  | 158390     |
| 410-50503-11        | Dup-4                  | Total/NA  | Solid  | 6010C  | 158390     |
| MB 410-158390/1-A   | Method Blank           | Total/NA  | Solid  | 6010C  | 158390     |
| LCS 410-158390/2-A  | Lab Control Sample     | Total/NA  | Solid  | 6010C  | 158390     |
| LCSD 410-158390/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 6010C  | 158390     |

### General Chemistry

#### Analysis Batch: 158422

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50503-1   | Pipe 85 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-2   | 7551-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-3   | Pipe 86 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-4   | Pipe 74 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-5   | Pipe 84 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-6   | UNK-ST-S (3)     | Total/NA  | Solid  | Moisture |            |
| 410-50503-7   | UNK-ST-N (3)     | Total/NA  | Solid  | Moisture |            |
| 410-50503-8   | Pipe 71 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-9   | Pipe 72 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-10  | Pipe 70 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50503-11  | Dup-4            | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

**Client Sample ID: Pipe 85 (2)**

**Lab Sample ID: 410-50503-1**

**Date Collected: 08/06/21 12:45**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Pipe 85 (2)**

**Lab Sample ID: 410-50503-1**

**Date Collected: 08/06/21 12:45**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 74.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 09:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 100             | 159518       | 08/12/21 14:49       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 13:25       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/09/21 20:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:14       | WJM9    | ELLE |

**Client Sample ID: 7551-P4 (3)**

**Lab Sample ID: 410-50503-2**

**Date Collected: 08/06/21 12:50**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: 7551-P4 (3)**

**Lab Sample ID: 410-50503-2**

**Date Collected: 08/06/21 12:50**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 85.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158571       | 08/10/21 09:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159083       | 08/11/21 16:48       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 13:48       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/09/21 20:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:24       | WJM9    | ELLE |

**Client Sample ID: Pipe 86 (2)**

**Lab Sample ID: 410-50503-3**

**Date Collected: 08/06/21 13:00**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

**Client Sample ID: Pipe 86 (2)**

**Lab Sample ID: 410-50503-3**

**Date Collected: 08/06/21 13:00**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 71.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 09:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 15:10       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 14:11       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        | DL  | 10              | 159422       | 08/11/21 23:35       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/09/21 20:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:27       | WJM9    | ELLE |

**Client Sample ID: Pipe 74 (2)**

**Lab Sample ID: 410-50503-4**

**Date Collected: 08/06/21 13:15**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Pipe 74 (2)**

**Lab Sample ID: 410-50503-4**

**Date Collected: 08/06/21 13:15**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 74.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 09:23       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 15:31       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159833       | 08/12/21 18:24       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160160       | 08/13/21 14:27       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 159833       | 08/12/21 18:24       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        | DL  | 5               | 160448       | 08/13/21 23:44       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/09/21 20:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:37       | WJM9    | ELLE |

**Client Sample ID: Pipe 84 (2)**

**Lab Sample ID: 410-50503-5**

**Date Collected: 08/06/21 13:25**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Pipe 84 (2)**

**Lab Sample ID: 410-50503-5**

**Date Collected: 08/06/21 13:25**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 91.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158571       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159083       | 08/11/21 17:11       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 14:56       | ULM3    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

**Client Sample ID: Pipe 84 (2)**

**Lab Sample ID: 410-50503-5**

**Date Collected: 08/06/21 13:25**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 91.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546         | DL  |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        | DL  | 10              | 159422       | 08/11/21 23:58       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:40       | WJM9    | ELLE |

**Client Sample ID: UNK-ST-S (3)**

**Lab Sample ID: 410-50503-6**

**Date Collected: 08/06/21 13:45**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: UNK-ST-S (3)**

**Lab Sample ID: 410-50503-6**

**Date Collected: 08/06/21 13:45**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 63.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158571       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159083       | 08/11/21 16:02       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 158571       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 159582       | 08/12/21 13:53       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 15:19       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:43       | WJM9    | ELLE |

**Client Sample ID: UNK-ST-N (3)**

**Lab Sample ID: 410-50503-7**

**Date Collected: 08/06/21 14:00**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: UNK-ST-N (3)**

**Lab Sample ID: 410-50503-7**

**Date Collected: 08/06/21 14:00**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 78.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 15:51       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 158572       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 50              | 160023       | 08/13/21 11:20       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 15:42       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        | DL  | 10              | 159422       | 08/12/21 00:20       | UWHS    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

**Client Sample ID: UNK-ST-N (3)**

**Lab Sample ID: 410-50503-7**

Date Collected: 08/06/21 14:00

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 78.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:46       | WJM9    | ELLE |

**Client Sample ID: Pipe 71 (2)**

**Lab Sample ID: 410-50503-8**

Date Collected: 08/09/21 11:30

Matrix: Solid

Date Received: 08/09/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Pipe 71 (2)**

**Lab Sample ID: 410-50503-8**

Date Collected: 08/09/21 11:30

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 62.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 16:12       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158764       | 08/10/21 17:56       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 158947       | 08/11/21 16:04       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:50       | WJM9    | ELLE |

**Client Sample ID: Pipe 72 (2)**

**Lab Sample ID: 410-50503-9**

Date Collected: 08/09/21 11:55

Matrix: Solid

Date Received: 08/09/21 16:02

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Pipe 72 (2)**

**Lab Sample ID: 410-50503-9**

Date Collected: 08/09/21 11:55

Matrix: Solid

Date Received: 08/09/21 16:02

Percent Solids: 74.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 16:33       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158969       | 08/11/21 09:56       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159578       | 08/12/21 19:55       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:56       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

**Client Sample ID: Pipe 70 (2)**

**Lab Sample ID: 410-50503-10**

**Date Collected: 08/09/21 12:15**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Pipe 70 (2)**

**Lab Sample ID: 410-50503-10**

**Date Collected: 08/09/21 12:15**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 62.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 16:54       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158969       | 08/11/21 09:56       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159578       | 08/12/21 20:18       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:59       | WJM9    | ELLE |

**Client Sample ID: Dup-4**

**Lab Sample ID: 410-50503-11**

**Date Collected: 08/09/21 00:00**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 158422       | 08/09/21 22:09       | OEL4    | ELLE |

**Client Sample ID: Dup-4**

**Lab Sample ID: 410-50503-11**

**Date Collected: 08/09/21 00:00**

**Matrix: Solid**

**Date Received: 08/09/21 16:02**

**Percent Solids: 68.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 158572       | 08/10/21 10:02       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 159518       | 08/12/21 17:14       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 158969       | 08/11/21 09:56       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 00:23       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 158390       | 08/10/21 04:11       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 159808       | 08/12/21 13:53       | WJM9    | ELLE |

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-50503-12**

**Date Collected: 08/09/21 00:00**

**Matrix: Water**

**Date Received: 08/09/21 16:02**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 159657       | 08/12/21 15:18       | UKAD    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50503-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-50503-1   | Pipe 85 (2)      | Solid  | 08/06/21 12:45 | 08/09/21 16:02 |
| 410-50503-2   | 7551-P4 (3)      | Solid  | 08/06/21 12:50 | 08/09/21 16:02 |
| 410-50503-3   | Pipe 86 (2)      | Solid  | 08/06/21 13:00 | 08/09/21 16:02 |
| 410-50503-4   | Pipe 74 (2)      | Solid  | 08/06/21 13:15 | 08/09/21 16:02 |
| 410-50503-5   | Pipe 84 (2)      | Solid  | 08/06/21 13:25 | 08/09/21 16:02 |
| 410-50503-6   | UNK-ST-S (3)     | Solid  | 08/06/21 13:45 | 08/09/21 16:02 |
| 410-50503-7   | UNK-ST-N (3)     | Solid  | 08/06/21 14:00 | 08/09/21 16:02 |
| 410-50503-8   | Pipe 71 (2)      | Solid  | 08/09/21 11:30 | 08/09/21 16:02 |
| 410-50503-9   | Pipe 72 (2)      | Solid  | 08/09/21 11:55 | 08/09/21 16:02 |
| 410-50503-10  | Pipe 70 (2)      | Solid  | 08/09/21 12:15 | 08/09/21 16:02 |
| 410-50503-11  | Dup-4            | Solid  | 08/09/21 00:00 | 08/09/21 16:02 |
| 410-50503-12  | Trip Blank       | Water  | 08/09/21 00:00 | 08/09/21 16:02 |

## Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike

Lancaster, PA 17601

Phone: 717-656-2300 Fax: 717-656-2681

## Chain of Custody Record



eurofins

Environment Testing  
America

410-50503 Chain of Custody

|  |  |   |             |   |   |   |  |
|--|--|---|-------------|---|---|---|--|
| <b>Client Information</b>  |  | Sampler<br>JA/SP/BS/DA  |             | Lab PM<br>Carter, Amek A  |   | COC No<br>410-30583-9562 2  |  |
| Client Contact<br>Mark Schaeffer   |  | Phone<br>784 467 3657   |             | E-Mail<br>Loran.Carter@eurofinset.com   |   | Page<br>Page 2 of 5   |  |
| Company<br>Stantec Consulting Corp.  |  | PWSID   |             | State or Origin<br>PA   |   | Job #   |  |
| Address<br>1060 Andrew Drive Suite 140   |  | Due Date Requested:   |             | <b>Analysis Requested</b>   |   | Preservation Codes:   |  |
| City<br>West Chester   |  | TAT Requested (days):<br>5 day  |             | <div style="display: flex; justify-content: space-between;"> <div>           3250C - PA Combo of Leaded and Unleaded Gasoline<br/>           6010C, 8270D, Moisture<br/>           3250C, UST - PA Combo of Leaded and Unleaded Gasoline         </div> <div>           Total Number of containers:         </div> </div> |   | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Z - other (specify) |  |
| State, Zip<br>PA, 19380  |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |             |   |   | Other:  |  |
| Phone  |  | PO #  |             |   |   |   |  |
| Email<br>mark.schaeffer@stantec.com  |  | Purchase Order Requested  |             |   |   |   |  |
| Project Name<br>PBF Logistics  |  | Project #<br>41007459   |             |   |   |   |  |
| Site:<br>51 St Street Terminal   |  | SSOW#   |             |   |   |   |  |
| <b>Sample Identification</b>   |  | Sample Date   | Sample Time | Sample Type<br>(C=Comp, G=grab)   | Matrix<br>(W=water, S=solid, O=oil, BT=tissue, A=air) | Special Instructions/Note:  |  |
|  |  |   |             | Preservation Code:  |   |   |  |
| Pipe 85 (2)  |  | 8/6/21  | 1245        | G   | Solid   | X X X   |  |
| 7551-P4 (3)  |  | 8/6/21  | 1250        | G   | Solid   | X X X   |  |
| Pipe 86 (2)  |  | 8/6/21  | 1300        | G   | Solid   | X X X   |  |
| Pipe 74 (2)  |  | 8/6/21  | 1315        | G   | Solid   | X X X   |  |
| Pipe 84 (2)  |  | 8/6/21  | 1325        | G   | Solid   | X X X   |  |
| UNK-ST-S (3)   |  | 8/6/21  | 1345        | G   | Solid   | X X X   |  |
| UNK-ST-N (3)   |  | 8/6/21  | 1400        | G   | Solid   | X X X   |  |
| Pipe 71 (2)  |  | 8/9/21  | 1130        | G   | Solid   | X X X   |  |
| Pipe 72 (2)  |  | 8/9/21  | 1155        | G   | Solid   | X X X   |  |
| Pipe 70 (2)  |  | 8/9/21  | 1155        | G   | Solid   | X X   |  |
| DOP-4  |  | 8/9/21  | -           | G   | Solid   | X X   |  |
| <b>Possible Hazard Identification</b>  |  |   |             | <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>  |   |   |  |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |   |             | <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months   |   |   |  |
| Deliverable Requested: I, II, III, IV, Other (specify)   |  |   |             | Special Instructions/QC Requirements:   |   |   |  |
| Empty Kit Relinquished by  |  | Date  |             | Time  |   | Method of Shipment  |  |
| Relinquished by  |  | 8/9/21  |             | 1230  |   | Stantec   |  |
| Relinquished by  |  | 8/9/21  |             | 1536  |   | Stantec   |  |
| Relinquished by  |  |   |             |   |   |   |  |
| Custody Seals Intact:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   |  | Custody Seal No.:   |             | Cooler Temperature(s) *C and Other Remarks:<br>4.5  |   |   |  |

Ver 06/08/2021

Environment Testing  
America

Ver: 06/08/2021

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-50503-1

Login Number: 50503

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Jeremiah, Cory T

| Question  | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.  | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.   | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.   | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.  | N/A    |         |
| COC is present.   | True   |         |
| COC is filled out in ink and legible.   | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.  | True   |         |
| Containers are not broken or leaking.   | True   |         |
| Sample collection date/times are provided.  | True   |         |
| Appropriate sample containers are used.   | True   |         |
| Sample bottles are completely filled.   | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.  | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?   | True   |         |
| Sample Preservation Verified.   | N/A    |         |
| Residual Chlorine Checked.  | N/A    |         |
| Sample custody seals are intact.  | True   |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-50672-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/16/2021 3:43:25 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter  
Project Manager  
8/16/2021 3:43:25 PM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *3        | ISTD response or retention time outside acceptable limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits   |
| F3        | Duplicate RPD exceeds the control limit   |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Job ID: 410-50672-1

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-50672-1

##### Receipt

The samples were received on 8/10/2021 4:48 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6°C and 4.1°C

##### Receipt Exceptions

The matrix for the following samples did not match the information listed on the Chain-of-Custody (COC): Pipe 67 (2) (410-50672-8), DUP-5 (410-50672-9), Pipe 19 (2) (410-50672-10) and 941-P2 (2) (410-50672-11). The samples matrix is solid, while the COC lists water.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 941-P2 (2) (410-50672-11). The container labels list 941-P2 (3), while the COC lists 941-P2 (2).

##### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Pipe 69 (2) (410-50672-1) and Pipe 22 (2) (410-50672-19). Elevated reporting limits (RLs) are provided.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: Pipe 58 (2) (410-50672-4). The sample(s) was re-analyzed and ISTD response was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Client Sample ID: Pipe 69 (2)

### Lab Sample ID: 410-50672-1

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|-----|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 590    | J         | 770  | 77  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 210    | J         | 770  | 93  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 350    | J         | 1500 | 220 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 650    | J         | 770  | 77  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 44     |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 150    |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 54     |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 95     |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 40     |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 150    |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 13     | J         | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 510    |           | 34   | 8.0 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 540    |           | 34   | 6.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 89     |           | 2.6  | 1.0 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 68 (2)

### Lab Sample ID: 410-50672-2

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 5.5    | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 2.9    | J         | 7.3 | 0.88 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 6.4    | J         | 15  | 2.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 1.7    | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 5.4    | J         | 7.3 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 120    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 360    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 310    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 370    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 210    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 350    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 72     |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 460    |           | 28  | 6.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 620    |           | 28  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 240    |           | 2.2 | 0.87 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 57 (2)

### Lab Sample ID: 410-50672-3

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[g,h,i]perylene | 24     | J         | 31  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 16     |           | 2.4 | 0.96 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 58 (2)

### Lab Sample ID: 410-50672-4

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 8.9    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 5.7    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 14     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.7    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 31     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 53     |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 16     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 12     |           | 1.8 | 0.72 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Client Sample ID: Pipe 59 (2)

### Lab Sample ID: 410-50672-5

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Anthracene           | 7.9    | J         | 30  | 6.0 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 7.1    | J         | 30  | 6.0 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 6.1    | J         | 30  | 6.0 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 9.1    | J         | 30  | 6.0 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 25     |           | 2.7 | 1.1 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 56 (2)

### Lab Sample ID: 410-50672-6

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 8.1    | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 26     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 27     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 32     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 23     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 28     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 29     |           | 20  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 40     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 160    | F2        | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 54 (2)

### Lab Sample ID: 410-50672-7

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 5.2    | J         | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 9.6    | J         | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 4.3    | J         | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 10     | J         | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 15     | J         | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 38     |           | 21  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 41     |           | 21  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 35     |           | 1.9 | 0.75 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 67 (2)

### Lab Sample ID: 410-50672-8

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 1.9    | J         | 7.9 | 0.94 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 2.4    | J         | 7.9 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 18     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 36     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 46     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 68     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 58     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 52     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 14     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 120    |           | 21  | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 63     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 93     |           | 1.6 | 0.66 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: DUP-5

### Lab Sample ID: 410-50672-9

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 2.0    | J         | 9.6 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1.4    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 18     |           | 9.6 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Client Sample ID: DUP-5 (Continued)

Lab Sample ID: 410-50672-9

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Xylenes, Total         | 9.2    | J         | 19  | 2.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 17     |           | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 2.2    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 23     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 52     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 75     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 100    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 87     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 63     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 47     |           | 23  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 65     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 78     |           | 1.8 | 0.70 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 19 (2)

Lab Sample ID: 410-50672-10

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 2.7    | J         | 8.9 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 4.0    | J         | 8.9 | 0.89 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 31     |           | 8.9 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 28     |           | 18  | 2.5  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 27     |           | 8.9 | 0.89 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 5.3    | J         | 8.9 | 0.89 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 10     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 5.1    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 4.9    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 6.3    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 7.3    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 5.2    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 58     |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 14     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 260    |           | 2.0 | 0.79 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 941-P2 (2)

Lab Sample ID: 410-50672-11

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 2.7    | J         | 12  | 1.4  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 3.2    | J         | 12  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 40     |           | 12  | 1.4  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 21     | J         | 23  | 3.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 28     |           | 12  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 5.8    | J         | 12  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 37     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 81     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 120    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 170    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 130    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 100    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 7.4    | J         | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 54     |           | 25  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 97     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 130    |           | 2.2 | 0.89 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Client Sample ID: Pipe 18 (2)

Lab Sample ID: 410-50672-12

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 1.3    | J         | 10  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 2.8    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[b]fluoranthene | 5.7    | J         | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 4.5    | J         | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 13     | J         | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 29     |           | 22  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 9.6    | J         | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 120    |           | 1.9 | 0.76 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 23 (2)

Lab Sample ID: 410-50672-13

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 3.0    | J         | 9.9 | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 25     |           | 9.9 | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 9.5    | J         | 20  | 2.8  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 14     |           | 9.9 | 0.99 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.4    | J         | 9.9 | 0.99 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 4.8    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 9.0    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 7.0    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 29     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 20     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 25     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 24     |           | 21  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 6.4    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 130    |           | 1.9 | 0.75 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 24 (2)

Lab Sample ID: 410-50672-14

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 3.1    | J         | 8.5 | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1.9    | J         | 8.5 | 0.85 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 20     |           | 8.5 | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 13     | J         | 17  | 2.4  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 8.3    | J         | 8.5 | 0.85 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 3.3    | J         | 8.5 | 0.85 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 9.9    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 5.3    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 8.5    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 14     | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 40     |           | 23  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 19     | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 210    |           | 1.8 | 0.74 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 25 (2)

Lab Sample ID: 410-50672-15

| Analyte                     | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene      | 1.6    | J         | 10 | 1.0 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                     | 140    |           | 10 | 1.2 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total              | 24     |           | 20 | 2.8 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 2.2    | J         | 10 | 1.0 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                     | 32     |           | 10 | 1.0 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Client Sample ID: Pipe 25 (2) (Continued)

Lab Sample ID: 410-50672-15

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 3.7    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[g,h,i]perylene   | 8.4    | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 21     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 21     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 150    |           | 24  | 5.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 26     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 60     |           | 2.0 | 0.79 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 74 (2)

Lab Sample ID: 410-50672-16

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 1.4    | J         | 8.2 | 0.98 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 1.1    | J         | 8.2 | 0.82 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 19     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 29     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 21     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 39     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 18     | J         | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 38     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 76     |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 57     |           | 21  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 120    |           | 1.8 | 0.74 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 20 (2)

Lab Sample ID: 410-50672-17

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 4.0    | J         | 9.3 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 3.7    | J         | 9.3 | 0.93 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene   | 9.1    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 5.7    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 14     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 7.1    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 11     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 10     | J         | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 9.8    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 66     |           | 2.0 | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 21 (2)

Lab Sample ID: 410-50672-18

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Phenanthrene | 23     | J         | 24  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 28     |           | 2.0 | 0.79 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 22 (2)

Lab Sample ID: 410-50672-19

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 51     | J         | 480 | 48  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 61     | J         | 480 | 58  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 170    | J         | 970 | 140 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 99     | J         | 480 | 48  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 22     |           | 22  | 4.3 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 35     |           | 22  | 4.3 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 33     |           | 22  | 4.3 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Client Sample ID: Pipe 22 (2) (Continued)

Lab Sample ID: 410-50672-19

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 41     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 38     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 52     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 11     | J         | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 50     |           | 22  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 42     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 1100   |           | 1.7 | 0.70 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Trip Blank

Lab Sample ID: 410-50672-20

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 69 (2)

Lab Sample ID: 410-50672-1

Date Collected: 08/09/21 13:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 48.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 770  | 62  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| 1,2-Dichloroethane          | ND     |           | 770  | 93  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| 1,3,5-Trimethylbenzene      | 590    | J         | 770  | 77  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Toluene                     | 210    | J         | 770  | 93  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Xylenes, Total              | 350    | J         | 1500 | 220 | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Methyl tertiary butyl ether | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Benzene                     | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Naphthalene                 | ND     |           | 770  | 310 | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| 1,2,4-Trimethylbenzene      | 650    | J         | 770  | 77  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Isopropylbenzene            | ND     |           | 770  | 62  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| 1,2-Dibromoethane           | ND     |           | 770  | 62  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 15:49 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 54 - 135 | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Dibromofluoromethane (Surr)  | 16        | S1-       | 50 - 141 | 08/11/21 11:05 | 08/13/21 15:49 | 50      |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 08/11/21 11:05 | 08/13/21 15:49 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 44     |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Benzo[a]anthracene   | 150    |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Benzo[a]pyrene       | 54     |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Benzo[b]fluoranthene | 95     |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Benzo[g,h,i]perylene | 40     |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Chrysene             | 150    |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Fluorene             | 13     | J         | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Phenanthrene         | 510    |           | 34 | 8.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Pyrene               | 540    |           | 34 | 6.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:08 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 75        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 01:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 01:08 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 89     |           | 2.6 | 1.0 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:23 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 51.1   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 68 (2)

Lab Sample ID: 410-50672-2

Date Collected: 08/09/21 13:15

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 58.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 7.3 | 0.59 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| 1,2-Dichloroethane | ND     |           | 7.3 | 0.88 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 68 (2)

Lab Sample ID: 410-50672-2

Date Collected: 08/09/21 13:15

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 58.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 5.5       | J         | 7.3      | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Toluene                      | 2.9       | J         | 7.3      | 0.88 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Xylenes, Total               | 6.4       | J         | 15       | 2.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 7.3      | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Benzene                      | 1.7       | J         | 7.3      | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Naphthalene                  | ND        |           | 7.3      | 2.9  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| 1,2,4-Trimethylbenzene       | 5.4       | J         | 7.3      | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Isopropylbenzene             | ND        |           | 7.3      | 0.59 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| 1,2-Dibromoethane            | ND        |           | 7.3      | 0.59 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 |      |       |   | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 50 - 131 |      |       |   | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |      |       |   | 08/11/21 12:01 | 08/12/21 16:12 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 |      |       |   | 08/11/21 12:01 | 08/12/21 16:12 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 120       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Benzo[a]anthracene      | 360       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Benzo[a]pyrene          | 310       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Benzo[b]fluoranthene    | 370       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Benzo[g,h,i]perylene    | 210       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Chrysene                | 350       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Fluorene                | 72        |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Phenanthrene            | 460       |           | 28       | 6.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Pyrene                  | 620       |           | 28       | 5.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 78        |           | 39 - 100 |     |       |   | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  |     |       |   | 08/12/21 10:21 | 08/13/21 01:30 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 |     |       |   | 08/12/21 10:21 | 08/13/21 01:30 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 240    |           | 2.2 | 0.87 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 41.5   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 57 (2)

Lab Sample ID: 410-50672-3

Date Collected: 08/09/21 13:35

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 53.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 11 | 0.91 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| 1,2-Dichloroethane     | ND     |           | 11 | 1.4  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Toluene                | ND     |           | 11 | 1.4  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 57 (2)

Lab Sample ID: 410-50672-3

Date Collected: 08/09/21 13:35

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 53.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 23 | 3.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Methyl tertiary butyl ether | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Benzene                     | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Naphthalene                 | ND     |           | 11 | 4.5  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Isopropylbenzene            | ND     |           | 11 | 0.91 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| 1,2-Dibromoethane           | ND     |           | 11 | 0.91 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:21 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 17:21 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 17:21 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Benzo[a]anthracene   | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Benzo[a]pyrene       | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Benzo[b]fluoranthene | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Benzo[g,h,i]perylene | 24     | J         | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Chrysene             | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Fluorene             | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Phenanthrene         | ND     |           | 31 | 7.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Pyrene               | ND     |           | 31 | 6.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 01:53 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 01:53 | 1       |
| p-Terphenyl-d14 (Surr)  | 91        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 01:53 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 16     |           | 2.4 | 0.96 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 22:19 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 46.9   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 14:37 | 1       |

Client Sample ID: Pipe 58 (2)

Lab Sample ID: 410-50672-4

Date Collected: 08/09/21 13:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 75.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.83 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| 1,2-Dichloroethane          | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Toluene                     | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Xylenes, Total              | ND     |           | 21 | 2.9  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Methyl tertiary butyl ether | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 58 (2)

Lab Sample ID: 410-50672-4

Date Collected: 08/09/21 13:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 75.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Naphthalene            | ND     | *3        | 10 | 4.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| 1,2,4-Trimethylbenzene | ND     | *3        | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Isopropylbenzene       | ND     |           | 10 | 0.83 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| 1,2-Dibromoethane      | ND     |           | 10 | 0.83 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 17:45 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 17:45 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 17:45 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Benzo[a]anthracene   | 8.9    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Benzo[a]pyrene       | 5.7    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Benzo[b]fluoranthene | 14     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Benzo[g,h,i]perylene | 8.7    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Chrysene             | 31     |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Fluorene             | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Phenanthrene         | 53     |           | 22 | 5.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Pyrene               | 16     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:00 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 03:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 03:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 12     |           | 1.8 | 0.72 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 22:26 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 24.7   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 14:37 | 1       |

Client Sample ID: Pipe 59 (2)

Lab Sample ID: 410-50672-5

Date Collected: 08/09/21 14:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 55.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.5 | 0.76 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.5 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Toluene                     | ND     |           | 9.5 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Xylenes, Total              | ND     |           | 19  | 2.7  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Benzene                     | ND     |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Naphthalene                 | ND     |           | 9.5 | 3.8  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 59 (2)

Lab Sample ID: 410-50672-5

Date Collected: 08/09/21 14:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 55.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene | ND     |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Isopropylbenzene       | ND     |           | 9.5 | 0.76 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| 1,2-Dibromoethane      | ND     |           | 9.5 | 0.76 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 18:08 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 18:08 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 7.9    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Benzo[a]anthracene   | 7.1    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Benzo[a]pyrene       | 6.1    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Benzo[b]fluoranthene | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Benzo[g,h,i]perylene | 9.1    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Chrysene             | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Fluorene             | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Phenanthrene         | ND     |           | 30 | 7.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Pyrene               | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:23 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 03:23 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 03:23 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 25     |           | 2.7 | 1.1 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:29 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 44.2   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 56 (2)

Lab Sample ID: 410-50672-6

Date Collected: 08/09/21 14:20

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 83.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Toluene                     | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.5  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Benzene                     | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Naphthalene                 | ND     |           | 8.9 | 3.5  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Isopropylbenzene            | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 56 (2)

Lab Sample ID: 410-50672-6

Date Collected: 08/09/21 14:20

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 83.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 8.9      | 0.71 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 |      |       |   | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 |      |       |   | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Dibromofluoromethane (Surr)  | 115       |           | 50 - 141 |      |       |   | 08/11/21 12:01 | 08/12/21 18:31 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 |      |       |   | 08/11/21 12:01 | 08/12/21 18:31 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 8.1       | J         | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Benzo[a]anthracene      | 26        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Benzo[a]pyrene          | 27        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Benzo[b]fluoranthene    | 32        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Benzo[g,h,i]perylene    | 23        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Chrysene                | 28        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Fluorene                | ND        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Phenanthrene            | 29        |           | 20       | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Pyrene                  | 40        |           | 20       | 4.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 |     |       |   | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  |     |       |   | 08/12/21 10:21 | 08/13/21 03:45 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 |     |       |   | 08/12/21 10:21 | 08/13/21 03:45 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 160    | F2        | 1.7 | 0.69 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:01 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.1   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 54 (2)

Lab Sample ID: 410-50672-7

Date Collected: 08/09/21 14:30

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 77.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.3 | 0.59 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.3 | 0.88 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Toluene                     | ND     |           | 7.3 | 0.88 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Benzene                     | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Naphthalene                 | ND     |           | 7.3 | 2.9  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Isopropylbenzene            | ND     |           | 7.3 | 0.59 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.3 | 0.59 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 18:54 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 54 (2)

Lab Sample ID: 410-50672-7

Date Collected: 08/09/21 14:30

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 77.5

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Dibromofluoromethane (Surr)  | 109       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 18:54 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 18:54 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 5.2    | J         | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Benzo[a]anthracene   | 9.6    | J         | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Benzo[a]pyrene       | 4.3    | J         | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Benzo[b]fluoranthene | 10     | J         | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Chrysene             | 15     | J         | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Fluorene             | ND     |           | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Phenanthrene         | 38     |           | 21 | 5.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Pyrene               | 41     |           | 21 | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:08 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 04:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 04:08 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 35     |           | 1.9 | 0.75 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:48 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 22.5   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 67 (2)

Lab Sample ID: 410-50672-8

Date Collected: 08/09/21 14:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 80.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.9 | 0.63 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.9 | 0.94 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Toluene                     | 1.9    | J         | 7.9 | 0.94 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Benzene                     | 2.4    | J         | 7.9 | 0.79 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Naphthalene                 | ND     |           | 7.9 | 3.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Isopropylbenzene            | ND     |           | 7.9 | 0.63 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.9 | 0.63 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:17 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 19:17 | 1       |
| Dibromofluoromethane (Surr)  | 109       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 19:17 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 67 (2)

Lab Sample ID: 410-50672-8

Date Collected: 08/09/21 14:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 80.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 99        |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 19:17 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 18     | J         | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Benzo[a]anthracene   | 36     |           | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Benzo[a]pyrene       | 46     |           | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Benzo[b]fluoranthene | 68     |           | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Benzo[g,h,i]perylene | 58     |           | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Chrysene             | 52     |           | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Fluorene             | 14     | J         | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Phenanthrene         | 120    |           | 21 | 4.9 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Pyrene               | 63     |           | 21 | 4.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:30 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 04:30 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 04:30 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 93     |           | 1.6 | 0.66 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 22:07 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.0   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: DUP-5

Lab Sample ID: 410-50672-9

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 72.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| 1,2-Dichloroethane          | 2.0    | J         | 9.6 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| 1,3,5-Trimethylbenzene      | 1.4    | J         | 9.6 | 0.96 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Toluene                     | 18     |           | 9.6 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Xylenes, Total              | 9.2    | J         | 19  | 2.7  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.6 | 0.96 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Benzene                     | 17     |           | 9.6 | 0.96 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Naphthalene                 | ND     |           | 9.6 | 3.8  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| 1,2,4-Trimethylbenzene      | 2.2    | J         | 9.6 | 0.96 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Isopropylbenzene            | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:16 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 14:16 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 14:16 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: DUP-5

Lab Sample ID: 410-50672-9

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 72.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 23     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Benzo[a]anthracene   | 52     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Benzo[a]pyrene       | 75     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Benzo[b]fluoranthene | 100    |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Benzo[g,h,i]perylene | 87     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Chrysene             | 63     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Fluorene             | ND     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Phenanthrene         | 47     |           | 23 | 5.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Pyrene               | 65     |           | 23 | 4.6 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 04:53 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 04:53 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 04:53 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 78     |           | 1.8 | 0.70 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 22:22 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.4   |           | 1.0 | 1.0 | %    | — |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 19 (2)

Lab Sample ID: 410-50672-10

Date Collected: 08/10/21 09:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 75.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| 1,2-Dichloroethane          | 2.7 J  |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| 1,3,5-Trimethylbenzene      | 4.0 J  |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Toluene                     | 31     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Xylenes, Total              | 28     |           | 18  | 2.5  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Benzene                     | 27     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Naphthalene                 | ND     |           | 8.9 | 3.6  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| 1,2,4-Trimethylbenzene      | 5.3 J  |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Isopropylbenzene            | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 19:40 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 19:40 | 1       |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 19:40 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene         | 10 J   |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Benzo[a]anthracene | 5.1 J  |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 19 (2)

Lab Sample ID: 410-50672-10

Date Collected: 08/10/21 09:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 75.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene       | 4.9    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Benzo[b]fluoranthene | 6.3    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Benzo[g,h,i]perylene | 7.3    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Chrysene             | 5.2    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Fluorene             | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Phenanthrene         | 58     |           | 22 | 5.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Pyrene               | 14     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:15 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 05:15 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 05:15 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 260    |           | 2.0 | 0.79 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:26 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 24.6   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: 941-P2 (2)

Lab Sample ID: 410-50672-11

Date Collected: 08/10/21 09:20

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 66.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 12 | 0.93 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| 1,2-Dichloroethane          | 2.7    | J         | 12 | 1.4  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| 1,3,5-Trimethylbenzene      | 3.2    | J         | 12 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Toluene                     | 40     |           | 12 | 1.4  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Xylenes, Total              | 21     | J         | 23 | 3.3  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Methyl tertiary butyl ether | ND     |           | 12 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Benzene                     | 28     |           | 12 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Naphthalene                 | ND     |           | 12 | 4.7  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| 1,2,4-Trimethylbenzene      | 5.8    | J         | 12 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Isopropylbenzene            | ND     |           | 12 | 0.93 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| 1,2-Dibromoethane           | ND     |           | 12 | 0.93 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 14:40 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 14:40 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 14:40 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 37     |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Benzo[a]anthracene   | 81     |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Benzo[a]pyrene       | 120    |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Benzo[b]fluoranthene | 170    |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: 941-P2 (2)

Lab Sample ID: 410-50672-11

Date Collected: 08/10/21 09:20

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 66.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene | 130    |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Chrysene             | 100    |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Fluorene             | 7.4    | J         | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Phenanthrene         | 54     |           | 25 | 6.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Pyrene               | 97     |           | 25 | 5.0 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 05:38 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 05:38 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 05:38 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 130    |           | 2.2 | 0.89 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:42 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 33.7   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 18 (2)

Lab Sample ID: 410-50672-12

Date Collected: 08/10/21 09:35

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 74.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.81 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| 1,2-Dichloroethane          | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Toluene                     | 1.3    | J         | 10 | 1.2  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Xylenes, Total              | ND     |           | 20 | 2.8  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Methyl tertiary butyl ether | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Benzene                     | 2.8    | J         | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Naphthalene                 | ND     |           | 10 | 4.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.81 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| 1,2-Dibromoethane           | ND     |           | 10 | 0.81 | ug/Kg | ✱ | 08/11/21 12:01 | 08/12/21 16:35 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Dibromofluoromethane (Surr)  | 109       |           | 50 - 141 | 08/11/21 12:01 | 08/12/21 16:35 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/11/21 12:01 | 08/12/21 16:35 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Benzo[a]anthracene   | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Benzo[a]pyrene       | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Benzo[b]fluoranthene | 5.7    | J         | 22 | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Benzo[g,h,i]perylene | 4.5    | J         | 22 | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Chrysene             | 13     | J         | 22 | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 18 (2)

Lab Sample ID: 410-50672-12

Date Collected: 08/10/21 09:35

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 74.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Fluorene                | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Phenanthrene            | 29        |           | 22       | 5.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Pyrene                  | 9.6 J     |           | 22       | 4.5 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 88        |           | 39 - 100 |     |       |   | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  |     |       |   | 08/12/21 10:21 | 08/13/21 06:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 |     |       |   | 08/12/21 10:21 | 08/13/21 06:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 1.9 | 0.76 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:45 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.7   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 23 (2)

Lab Sample ID: 410-50672-13

Date Collected: 08/10/21 09:45

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 77.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 9.9      | 0.79 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| 1,2-Dichloroethane           | 3.0 J     |           | 9.9      | 1.2  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 9.9      | 0.99 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Toluene                      | 25        |           | 9.9      | 1.2  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Xylenes, Total               | 9.5 J     |           | 20       | 2.8  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 9.9      | 0.99 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Benzene                      | 14        |           | 9.9      | 0.99 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Naphthalene                  | ND        |           | 9.9      | 3.9  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| 1,2,4-Trimethylbenzene       | 1.4 J     |           | 9.9      | 0.99 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Isopropylbenzene             | ND        |           | 9.9      | 0.79 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| 1,2-Dibromoethane            | ND        |           | 9.9      | 0.79 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 |      |       |   | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 |      |       |   | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Dibromofluoromethane (Surr)  | 112       |           | 50 - 141 |      |       |   | 08/11/21 11:19 | 08/12/21 15:03 | 1       |
| Toluene-d8 (Surr)            | 109       |           | 52 - 141 |      |       |   | 08/11/21 11:19 | 08/12/21 15:03 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 4.8 J  |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Benzo[a]anthracene   | 9.0 J  |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Benzo[a]pyrene       | 7.0 J  |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Benzo[b]fluoranthene | 29     |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Benzo[g,h,i]perylene | 20 J   |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Chrysene             | 25     |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Fluorene             | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Phenanthrene         | 24     |           | 21 | 5.1 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 23 (2)

Date Collected: 08/10/21 09:45

Date Received: 08/10/21 16:48

## Lab Sample ID: 410-50672-13

Matrix: Solid

Percent Solids: 77.8

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Pyrene  | 6.4    | J         | 21 | 4.2 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:23 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 06:23 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 06:23 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 130    |           | 1.9 | 0.75 | mg/Kg | ☼ | 08/11/21 20:43 | 08/13/21 22:04 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 22.2   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 14:37 | 1       |

## Client Sample ID: Pipe 24 (2)

Date Collected: 08/10/21 09:55

Date Received: 08/10/21 16:48

## Lab Sample ID: 410-50672-14

Matrix: Solid

Percent Solids: 72.1

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.5 | 0.68 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| 1,2-Dichloroethane          | 3.1    | J         | 8.5 | 1.0  | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| 1,3,5-Trimethylbenzene      | 1.9    | J         | 8.5 | 0.85 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Toluene                     | 20     |           | 8.5 | 1.0  | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Xylenes, Total              | 13     | J         | 17  | 2.4  | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.5 | 0.85 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Benzene                     | 8.3    | J         | 8.5 | 0.85 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Naphthalene                 | ND     |           | 8.5 | 3.4  | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| 1,2,4-Trimethylbenzene      | 3.3    | J         | 8.5 | 0.85 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Isopropylbenzene            | ND     |           | 8.5 | 0.68 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.5 | 0.68 | ug/Kg | ☼ | 08/11/21 11:19 | 08/12/21 15:26 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Dibromofluoromethane (Surr)  | 108       |           | 50 - 141 | 08/11/21 11:19 | 08/12/21 15:26 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 52 - 141 | 08/11/21 11:19 | 08/12/21 15:26 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 9.9    | J         | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Benzo[a]anthracene   | 5.3    | J         | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Benzo[a]pyrene       | ND     |           | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Benzo[b]fluoranthene | ND     |           | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Chrysene             | 8.5    | J         | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Fluorene             | 14     | J         | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Phenanthrene         | 40     |           | 23 | 5.5 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Pyrene               | 19     | J         | 23 | 4.6 | ug/Kg | ☼ | 08/12/21 10:21 | 08/13/21 06:45 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 24 (2)

Lab Sample ID: 410-50672-14

Date Collected: 08/10/21 09:55

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 72.1

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 68        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| Nitrobenzene-d5 (Surr)  | 56        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 06:45 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 06:45 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 210    |           | 1.8 | 0.74 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 22:16 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.9   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

## Client Sample ID: Pipe 25 (2)

Lab Sample ID: 410-50672-15

Date Collected: 08/10/21 10:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 69.4

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| 1,2-Dichloroethane          | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| 1,3,5-Trimethylbenzene      | 1.6    | J         | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Toluene                     | 140    |           | 10 | 1.2  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Xylenes, Total              | 24     |           | 20 | 2.8  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Methyl tertiary butyl ether | 2.2    | J         | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Benzene                     | 32     |           | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Naphthalene                 | ND     |           | 10 | 4.0  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| 1,2,4-Trimethylbenzene      | 3.7    | J         | 10 | 1.0  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| 1,2-Dibromoethane           | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 15:49 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 08/11/21 11:19 | 08/12/21 15:49 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/11/21 11:19 | 08/12/21 15:49 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Benzo[a]anthracene   | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Benzo[a]pyrene       | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Benzo[b]fluoranthene | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Benzo[g,h,i]perylene | 8.4    | J         | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Chrysene             | 21     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Fluorene             | 21     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Phenanthrene         | 150    |           | 24 | 5.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Pyrene               | 26     |           | 24 | 4.8 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:08 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 66        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 58        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 07:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 70        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 07:08 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 25 (2)

Date Collected: 08/10/21 10:05

Date Received: 08/10/21 16:48

## Lab Sample ID: 410-50672-15

Matrix: Solid

Percent Solids: 69.4

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 60     |           | 2.0 | 0.79 | mg/Kg | ☆ | 08/11/21 20:43 | 08/13/21 22:01 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 30.6   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

## Client Sample ID: Pipe 74 (2)

Date Collected: 08/10/21 10:15

Date Received: 08/10/21 16:48

## Lab Sample ID: 410-50672-16

Matrix: Solid

Percent Solids: 80.8

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.2 | 0.65 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.2 | 0.98 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Toluene                     | 1.4    | J         | 8.2 | 0.98 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.3  | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.2 | 0.82 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Benzene                     | 1.1    | J         | 8.2 | 0.82 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Naphthalene                 | ND     |           | 8.2 | 3.3  | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Isopropylbenzene            | ND     |           | 8.2 | 0.65 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.2 | 0.65 | ug/Kg | ☆ | 08/11/21 11:19 | 08/12/21 20:03 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 119       |           | 54 - 135 | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 80        |           | 50 - 131 | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Dibromofluoromethane (Surr)  | 115       |           | 50 - 141 | 08/11/21 11:19 | 08/12/21 20:03 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 52 - 141 | 08/11/21 11:19 | 08/12/21 20:03 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 19     | J         | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Benzo[a]anthracene   | 29     |           | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Benzo[a]pyrene       | 21     |           | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Benzo[b]fluoranthene | 39     |           | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Benzo[g,h,i]perylene | 18     | J         | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Chrysene             | 38     |           | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Fluorene             | ND     |           | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Phenanthrene         | 76     |           | 21 | 5.0 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Pyrene               | 57     |           | 21 | 4.1 | ug/Kg | ☆ | 08/12/21 10:21 | 08/13/21 07:30 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 07:30 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 07:30 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 1.8 | 0.74 | mg/Kg | ☆ | 08/11/21 20:43 | 08/13/21 21:58 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 74 (2)

Date Collected: 08/10/21 10:15

Date Received: 08/10/21 16:48

## Lab Sample ID: 410-50672-16

Matrix: Solid

Percent Solids: 80.8

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 19.2   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

## Client Sample ID: Pipe 20 (2)

Date Collected: 08/10/21 10:30

Date Received: 08/10/21 16:48

## Lab Sample ID: 410-50672-17

Matrix: Solid

Percent Solids: 74.9

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 9.3      | 0.75 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| 1,2-Dichloroethane           | ND        |           | 9.3      | 1.1  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 9.3      | 0.93 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Toluene                      | 4.0       | J         | 9.3      | 1.1  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Xylenes, Total               | ND        |           | 19       | 2.6  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 9.3      | 0.93 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Benzene                      | 3.7       | J         | 9.3      | 0.93 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Naphthalene                  | ND        |           | 9.3      | 3.7  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 9.3      | 0.93 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Isopropylbenzene             | ND        |           | 9.3      | 0.75 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| 1,2-Dibromoethane            | ND        |           | 9.3      | 0.75 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 |      |       |   | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 |      |       |   | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Dibromofluoromethane (Surr)  | 109       |           | 50 - 141 |      |       |   | 08/11/21 11:19 | 08/12/21 20:26 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 |      |       |   | 08/11/21 11:19 | 08/12/21 20:26 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Benzo[a]anthracene      | 9.1       | J         | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Benzo[a]pyrene          | 5.7       | J         | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Benzo[b]fluoranthene    | 14        | J         | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Benzo[g,h,i]perylene    | 7.1       | J         | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Chrysene                | 11        | J         | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Fluorene                | ND        |           | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Phenanthrene            | 10        | J         | 22       | 5.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Pyrene                  | 9.8       | J         | 22       | 4.4 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 |     |       |   | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  |     |       |   | 08/12/21 10:21 | 08/13/21 07:53 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 |     |       |   | 08/12/21 10:21 | 08/13/21 07:53 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 66     |           | 2.0 | 0.78 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:51 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.1   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 14:37 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 21 (2)

Lab Sample ID: 410-50672-18

Date Collected: 08/10/21 10:40

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 70.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Toluene                     | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.5  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Benzene                     | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Naphthalene                 | ND     |           | 8.9 | 3.6  | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Isopropylbenzene            | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/11/21 11:19 | 08/12/21 16:58 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 08/11/21 11:19 | 08/12/21 16:58 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 08/11/21 11:19 | 08/12/21 16:58 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Benzo[a]anthracene   | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Benzo[a]pyrene       | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Benzo[b]fluoranthene | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Chrysene             | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Fluorene             | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Phenanthrene         | 23     | J         | 24 | 5.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Pyrene               | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:15 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 88        |           | 39 - 100 | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 08/12/21 10:21 | 08/13/21 08:15 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/12/21 10:21 | 08/13/21 08:15 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 28     |           | 2.0 | 0.79 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:54 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 29.3   |           | 1.0 | 1.0 | %    |   |          | 08/11/21 16:33 | 1       |

Client Sample ID: Pipe 22 (2)

Lab Sample ID: 410-50672-19

Date Collected: 08/10/21 10:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 76.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 480 | 39  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| 1,2-Dichloroethane | ND     |           | 480 | 58  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Pipe 22 (2)

Lab Sample ID: 410-50672-19

Date Collected: 08/10/21 10:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 76.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 51        | J         | 480      | 48  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Toluene                      | 61        | J         | 480      | 58  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Xylenes, Total               | 170       | J         | 970      | 140 | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 480      | 48  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Benzene                      | ND        |           | 480      | 48  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Naphthalene                  | ND        |           | 480      | 190 | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| 1,2,4-Trimethylbenzene       | 99        | J         | 480      | 48  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Isopropylbenzene             | ND        |           | 480      | 39  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| 1,2-Dibromoethane            | ND        |           | 480      | 39  | ug/Kg | ✱ | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 54 - 135 |     |       |   | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 |     |       |   | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 |     |       |   | 08/11/21 11:05 | 08/13/21 16:10 | 50      |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 |     |       |   | 08/11/21 11:05 | 08/13/21 16:10 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 22        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Benzo[a]anthracene      | 35        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Benzo[a]pyrene          | 33        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Benzo[b]fluoranthene    | 41        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Benzo[g,h,i]perylene    | 38        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Chrysene                | 52        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Fluorene                | 11        | J         | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Phenanthrene            | 50        |           | 22       | 5.2 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Pyrene                  | 42        |           | 22       | 4.3 | ug/Kg | ✱ | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 |     |       |   | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  |     |       |   | 08/12/21 10:21 | 08/13/21 08:38 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 |     |       |   | 08/12/21 10:21 | 08/13/21 08:38 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 1100   |           | 1.7 | 0.70 | mg/Kg | ✱ | 08/11/21 20:43 | 08/13/21 21:20 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 23.1   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 09:46 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-50672-20

Date Collected: 08/10/21 00:00

Matrix: Water

Date Received: 08/10/21 16:48

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane      | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:36 | 1       |
| Ethylbenzene           | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/13/21 10:36 | 1       |
| 1,2-Dichloroethane     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:36 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:36 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

Client Sample ID: Trip Blank

Lab Sample ID: 410-50672-20

Date Collected: 08/10/21 00:00

Matrix: Water

Date Received: 08/10/21 16:48

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:36 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/13/21 10:36 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/13/21 10:36 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:36 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:36 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:36 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:36 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95        |           | 80 - 120 |          | 08/13/21 10:36 | 1       |
| 4-Bromofluorobenzene (Surr)  | 105       |           | 80 - 120 |          | 08/13/21 10:36 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 80 - 120 |          | 08/13/21 10:36 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 80 - 120 |          | 08/13/21 10:36 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-50672-1       | Pipe 69 (2)            | 105  | 89              | 16 S1-           | 93              |
| 410-50672-2       | Pipe 68 (2)            | 112  | 99              | 106              | 94              |
| 410-50672-3       | Pipe 57 (2)            | 103  | 92              | 102              | 94              |
| 410-50672-4       | Pipe 58 (2)            | 107  | 82              | 104              | 105             |
| 410-50672-5       | Pipe 59 (2)            | 109  | 93              | 103              | 94              |
| 410-50672-6       | Pipe 56 (2)            | 116  | 83              | 115              | 105             |
| 410-50672-7       | Pipe 54 (2)            | 114  | 87              | 109              | 102             |
| 410-50672-8       | Pipe 67 (2)            | 111  | 89              | 109              | 99              |
| 410-50672-9       | DUP-5                  | 111  | 89              | 107              | 99              |
| 410-50672-10      | Pipe 19 (2)            | 107  | 88              | 105              | 101             |
| 410-50672-11      | 941-P2 (2)             | 109  | 86              | 107              | 102             |
| 410-50672-12      | Pipe 18 (2)            | 112  | 87              | 109              | 102             |
| 410-50672-13      | Pipe 23 (2)            | 114  | 82              | 112              | 109             |
| 410-50672-14      | Pipe 24 (2)            | 114  | 86              | 108              | 103             |
| 410-50672-15      | Pipe 25 (2)            | 111  | 88              | 107              | 100             |
| 410-50672-16      | Pipe 74 (2)            | 119  | 80              | 115              | 108             |
| 410-50672-17      | Pipe 20 (2)            | 114  | 88              | 109              | 100             |
| 410-50672-18      | Pipe 21 (2)            | 111  | 94              | 107              | 95              |
| 410-50672-19      | Pipe 22 (2)            | 104  | 89              | 98               | 93              |
| LCS 410-159582/4  | Lab Control Sample     | 104  | 99              | 102              | 98              |
| LCS 410-160023/4  | Lab Control Sample     | 92   | 83              | 93               | 89              |
| LCSD 410-159582/5 | Lab Control Sample Dup | 101  | 98              | 102              | 98              |
| LCSD 410-160023/5 | Lab Control Sample Dup | 95   | 84              | 95               | 89              |
| MB 410-159582/7   | Method Blank           | 105  | 95              | 105              | 96              |
| MB 410-160023/7   | Method Blank           | 105  | 87              | 99               | 93              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-50672-20      | Trip Blank             | 95   | 105             | 99               | 93              |
| LCS 410-160096/4  | Lab Control Sample     | 97   | 105             | 101              | 94              |
| LCSD 410-160096/5 | Lab Control Sample Dup | 97   | 103             | 100              | 93              |
| MB 410-160096/6   | Method Blank           | 97   | 104             | 100              | 93              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50672-1

Project/Site: PBF Logistics

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-50672-1        | Pipe 69 (2)        | 75   | 63             | 84                 |
| 410-50672-2        | Pipe 68 (2)        | 78   | 68             | 87                 |
| 410-50672-3        | Pipe 57 (2)        | 89   | 75             | 91                 |
| 410-50672-3 MS     | Pipe 57 (2)        | 73   | 61             | 78                 |
| 410-50672-3 MSD    | Pipe 57 (2)        | 79   | 66             | 82                 |
| 410-50672-4        | Pipe 58 (2)        | 80   | 65             | 78                 |
| 410-50672-5        | Pipe 59 (2)        | 80   | 66             | 83                 |
| 410-50672-6        | Pipe 56 (2)        | 80   | 67             | 76                 |
| 410-50672-7        | Pipe 54 (2)        | 80   | 65             | 82                 |
| 410-50672-8        | Pipe 67 (2)        | 83   | 73             | 81                 |
| 410-50672-9        | DUP-5              | 83   | 72             | 81                 |
| 410-50672-10       | Pipe 19 (2)        | 82   | 68             | 81                 |
| 410-50672-11       | 941-P2 (2)         | 80   | 70             | 80                 |
| 410-50672-12       | Pipe 18 (2)        | 88   | 73             | 86                 |
| 410-50672-13       | Pipe 23 (2)        | 80   | 64             | 84                 |
| 410-50672-14       | Pipe 24 (2)        | 68   | 56             | 78                 |
| 410-50672-15       | Pipe 25 (2)        | 66   | 58             | 70                 |
| 410-50672-16       | Pipe 74 (2)        | 84   | 66             | 82                 |
| 410-50672-17       | Pipe 20 (2)        | 85   | 73             | 82                 |
| 410-50672-18       | Pipe 21 (2)        | 88   | 72             | 85                 |
| 410-50672-19       | Pipe 22 (2)        | 74   | 63             | 86                 |
| LCS 410-159508/2-A | Lab Control Sample | 77   | 68             | 86                 |
| MB 410-159508/1-A  | Method Blank       | 83   | 76             | 92                 |

## Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-159582/7

Matrix: Solid

Analysis Batch: 159582

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/12/21 12:17 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/12/21 12:17 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/12/21 12:17 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95           |              | 50 - 131 |          | 08/12/21 12:17 | 1       |
| Dibromofluoromethane (Surr)  | 105          |              | 50 - 141 |          | 08/12/21 12:17 | 1       |
| Toluene-d8 (Surr)            | 96           |              | 52 - 141 |          | 08/12/21 12:17 | 1       |

Lab Sample ID: LCS 410-159582/4

Matrix: Solid

Analysis Batch: 159582

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.7       |               | ug/Kg |   | 94   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 21.2       |               | ug/Kg |   | 106  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.3       |               | ug/Kg |   | 92   | 73 - 120     |
| Toluene                     | 20.0        | 18.9       |               | ug/Kg |   | 95   | 80 - 120     |
| Xylenes, Total              | 60.0        | 56.4       |               | ug/Kg |   | 94   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 21.1       |               | ug/Kg |   | 105  | 72 - 120     |
| Benzene                     | 20.0        | 20.9       |               | ug/Kg |   | 105  | 80 - 120     |
| Naphthalene                 | 20.0        | 18.4       |               | ug/Kg |   | 92   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.3       |               | ug/Kg |   | 92   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 18.4       |               | ug/Kg |   | 92   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 20.5       |               | ug/Kg |   | 103  | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-159582/5

Matrix: Solid

Analysis Batch: 159582

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 18.2        |                | ug/Kg |   | 91   | 78 - 120     | 3   | 30        |
| 1,2-Dichloroethane | 20.0        | 21.7        |                | ug/Kg |   | 109  | 71 - 128     | 2   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-159582/5

Matrix: Solid

Analysis Batch: 159582

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 17.9        |                | ug/Kg |   | 90   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 18.6        |                | ug/Kg |   | 93   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 55.2        |                | ug/Kg |   | 92   | 75 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 21.0        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| Benzene                     | 20.0        | 20.8        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 18.7        |                | ug/Kg |   | 93   | 48 - 130     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.1        |                | ug/Kg |   | 90   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 20.0        | 18.0        |                | ug/Kg |   | 90   | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane           | 20.0        | 20.9        |                | ug/Kg |   | 105  | 76 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

Lab Sample ID: MB 410-160023/7

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/13/21 10:30 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/13/21 10:30 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/13/21 10:30 | 50      |
| 4-Bromofluorobenzene (Surr)  | 87           |              | 50 - 131 |          | 08/13/21 10:30 | 50      |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |          | 08/13/21 10:30 | 50      |
| Toluene-d8 (Surr)            | 93           |              | 52 - 141 |          | 08/13/21 10:30 | 50      |

Lab Sample ID: LCS 410-160023/4

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 1000        | 930        |               | ug/Kg |   | 93   | 78 - 120     |
| 1,2-Dichloroethane     | 1000        | 902        |               | ug/Kg |   | 90   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 870        |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                | 1000        | 941        |               | ug/Kg |   | 94   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-160023/4

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 3000        | 2890       |               | ug/Kg |   | 96   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 949        |               | ug/Kg |   | 95   | 72 - 120     |
| Benzene                     | 1000        | 974        |               | ug/Kg |   | 97   | 80 - 120     |
| Naphthalene                 | 1000        | 908        |               | ug/Kg |   | 91   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 861        |               | ug/Kg |   | 86   | 73 - 120     |
| Isopropylbenzene            | 1000        | 966        |               | ug/Kg |   | 97   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 957        |               | ug/Kg |   | 96   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 92            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 83            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 93            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 89            |               | 52 - 141 |

Lab Sample ID: LCSD 410-160023/5

Matrix: Solid

Analysis Batch: 160023

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 922         |                | ug/Kg |   | 92   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 919         |                | ug/Kg |   | 92   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 851         |                | ug/Kg |   | 85   | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 950         |                | ug/Kg |   | 95   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2860        |                | ug/Kg |   | 95   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 952         |                | ug/Kg |   | 95   | 72 - 120     | 0   | 30        |
| Benzene                     | 1000        | 979         |                | ug/Kg |   | 98   | 80 - 120     | 0   | 30        |
| Naphthalene                 | 1000        | 913         |                | ug/Kg |   | 91   | 48 - 130     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 855         |                | ug/Kg |   | 86   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 1000        | 964         |                | ug/Kg |   | 96   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 1000        | 956         |                | ug/Kg |   | 96   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 95             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 84             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 95             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 89             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-160096/6

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane      | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Ethylbenzene           | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,2-Dichloroethane     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-160096/6

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/13/21 10:12 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:12 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97           |              | 80 - 120 |          | 08/13/21 10:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104          |              | 80 - 120 |          | 08/13/21 10:12 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 80 - 120 |          | 08/13/21 10:12 | 1       |
| Toluene-d8 (Surr)            | 93           |              | 80 - 120 |          | 08/13/21 10:12 | 1       |

Lab Sample ID: LCS 410-160096/4

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromoethane           | 20.0        | 16.2       |               | ug/L |   | 81   | 77 - 120     |
| Ethylbenzene                | 20.0        | 16.8       |               | ug/L |   | 84   | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 17.6       |               | ug/L |   | 88   | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 15.8       |               | ug/L |   | 79   | 75 - 120     |
| Toluene                     | 20.0        | 16.4       |               | ug/L |   | 82   | 80 - 120     |
| Xylenes, Total              | 60.0        | 49.9       |               | ug/L |   | 83   | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.1       |               | ug/L |   | 90   | 69 - 122     |
| Benzene                     | 20.0        | 18.2       |               | ug/L |   | 91   | 80 - 120     |
| Naphthalene                 | 20.0        | 16.2       |               | ug/L |   | 81   | 53 - 124     |
| 1,2,4-Trimethylbenzene      | 20.0        | 15.6       |               | ug/L |   | 78   | 75 - 120     |
| Isopropylbenzene            | 20.0        | 16.3       |               | ug/L |   | 81   | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 105           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 101           |               | 80 - 120 |
| Toluene-d8 (Surr)            | 94            |               | 80 - 120 |

Lab Sample ID: LCSD 410-160096/5

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| 1,2-Dibromoethane      | 20.0        | 18.4        |                | ug/L |   | 92   | 77 - 120     | 13  | 30    |
| Ethylbenzene           | 20.0        | 18.9        |                | ug/L |   | 94   | 80 - 120     | 11  | 30    |
| 1,2-Dichloroethane     | 20.0        | 19.9        |                | ug/L |   | 99   | 73 - 124     | 12  | 30    |
| 1,3,5-Trimethylbenzene | 20.0        | 17.6        |                | ug/L |   | 88   | 75 - 120     | 11  | 30    |
| Toluene                | 20.0        | 18.5        |                | ug/L |   | 93   | 80 - 120     | 12  | 30    |
| Xylenes, Total         | 60.0        | 55.7        |                | ug/L |   | 93   | 80 - 120     | 11  | 30    |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-160096/5

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/L |   | 102  | 69 - 122     | 12  | 30        |
| Benzene                     | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 120     | 11  | 30        |
| Naphthalene                 | 20.0        | 17.9        |                | ug/L |   | 89   | 53 - 124     | 10  | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.7        |                | ug/L |   | 88   | 75 - 120     | 13  | 30        |
| Isopropylbenzene            | 20.0        | 18.2        |                | ug/L |   | 91   | 80 - 120     | 11  | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97             |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 103            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 100            |                | 80 - 120 |
| Toluene-d8 (Surr)            | 93             |                | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-159508/1-A

Matrix: Solid

Analysis Batch: 159845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159508

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/12/21 10:21 | 08/12/21 19:13 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 83           |              | 39 - 100 | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| Nitrobenzene-d5 (Surr)  | 76           |              | 32 - 97  | 08/12/21 10:21 | 08/12/21 19:13 | 1       |
| p-Terphenyl-d14 (Surr)  | 92           |              | 45 - 108 | 08/12/21 10:21 | 08/12/21 19:13 | 1       |

Lab Sample ID: LCS 410-159508/2-A

Matrix: Solid

Analysis Batch: 159845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159508

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1290       |               | ug/Kg |   | 78   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1290       |               | ug/Kg |   | 77   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1440       |               | ug/Kg |   | 87   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1330       |               | ug/Kg |   | 80   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1670       |               | ug/Kg |   | 100  | 77 - 120     |
| Chrysene             | 1670        | 1290       |               | ug/Kg |   | 78   | 66 - 120     |
| Fluorene             | 1670        | 1320       |               | ug/Kg |   | 79   | 68 - 120     |
| Phenanthrene         | 1670        | 1250       |               | ug/Kg |   | 75   | 74 - 120     |
| Pyrene               | 1670        | 1240       |               | ug/Kg |   | 74   | 70 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-159508/2-A

Matrix: Solid

Analysis Batch: 159845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159508

|                         | LCS       | LCS       |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 77        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 |

Lab Sample ID: 410-50672-3 MS

Matrix: Solid

Analysis Batch: 159966

Client Sample ID: Pipe 57 (2)

Prep Type: Total/NA

Prep Batch: 159508

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Anthracene           | ND            |                  | 3120        | 2350      |              | ug/Kg | ✱ | 75   | 75 - 120     |
| Benzo[a]anthracene   | ND            |                  | 3120        | 2640      |              | ug/Kg | ✱ | 85   | 73 - 120     |
| Benzo[a]pyrene       | ND            |                  | 3120        | 2560      |              | ug/Kg | ✱ | 82   | 80 - 123     |
| Benzo[b]fluoranthene | ND            |                  | 3120        | 2150      |              | ug/Kg | ✱ | 69   | 63 - 120     |
| Benzo[g,h,i]perylene | 24            | J                | 3120        | 2690      |              | ug/Kg | ✱ | 86   | 77 - 120     |
| Chrysene             | ND            |                  | 3120        | 2580      |              | ug/Kg | ✱ | 83   | 66 - 120     |
| Fluorene             | ND            |                  | 3120        | 2410      |              | ug/Kg | ✱ | 77   | 68 - 120     |
| Phenanthrene         | ND            |                  | 3120        | 2300      |              | ug/Kg | ✱ | 74   | 74 - 120     |
| Pyrene               | ND            |                  | 3120        | 2400      |              | ug/Kg | ✱ | 77   | 70 - 120     |

|                         | MS        | MS        |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 73        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 |

Lab Sample ID: 410-50672-3 MSD

Matrix: Solid

Analysis Batch: 159966

Client Sample ID: Pipe 57 (2)

Prep Type: Total/NA

Prep Batch: 159508

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Anthracene           | ND            |                  | 3130        | 2510       |               | ug/Kg | ✱ | 80   | 75 - 120     | 7   | 30    |
| Benzo[a]anthracene   | ND            |                  | 3130        | 2760       |               | ug/Kg | ✱ | 88   | 73 - 120     | 5   | 30    |
| Benzo[a]pyrene       | ND            |                  | 3130        | 2720       |               | ug/Kg | ✱ | 87   | 80 - 123     | 6   | 30    |
| Benzo[b]fluoranthene | ND            |                  | 3130        | 2540       |               | ug/Kg | ✱ | 81   | 63 - 120     | 17  | 30    |
| Benzo[g,h,i]perylene | 24            | J                | 3130        | 2800       |               | ug/Kg | ✱ | 89   | 77 - 120     | 4   | 30    |
| Chrysene             | ND            |                  | 3130        | 2740       |               | ug/Kg | ✱ | 88   | 66 - 120     | 6   | 30    |
| Fluorene             | ND            |                  | 3130        | 2650       |               | ug/Kg | ✱ | 85   | 68 - 120     | 10  | 30    |
| Phenanthrene         | ND            |                  | 3130        | 2430       |               | ug/Kg | ✱ | 78   | 74 - 120     | 6   | 30    |
| Pyrene               | ND            |                  | 3130        | 2560       |               | ug/Kg | ✱ | 82   | 70 - 120     | 6   | 30    |

|                         | MSD       | MSD       |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-159427/1-A  
Matrix: Solid  
Analysis Batch: 160481

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 159427

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND           |                 | 1.5 | 0.60 | mg/Kg |   | 08/11/21 20:43 | 08/13/21 20:49 | 1       |

Lab Sample ID: LCS 410-159427/2-A  
Matrix: Solid  
Analysis Batch: 160481

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 159427

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Lead    | 5.00           | 5.39          |                  | mg/Kg |   | 108  | 80 - 120        |

Lab Sample ID: 410-50672-6 MS  
Matrix: Solid  
Analysis Batch: 160481

Client Sample ID: Pipe 56 (2)  
Prep Type: Total/NA  
Prep Batch: 159427

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec  | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|-------|-----------------|
| Lead    | 160              | F2                  | 5.62           | 77.4         | 4               | mg/Kg | ✱ | -1490 | 75 - 125        |

Lab Sample ID: 410-50672-6 MSD  
Matrix: Solid  
Analysis Batch: 160481

Client Sample ID: Pipe 56 (2)  
Prep Type: Total/NA  
Prep Batch: 159427

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Lead    | 160              | F2                  | 5.18           | 130           | 4 F2             | mg/Kg | ✱ | -612 | 75 - 125        | 50  | 20           |

Lab Sample ID: 410-50672-6 DU  
Matrix: Solid  
Analysis Batch: 160481

Client Sample ID: Pipe 56 (2)  
Prep Type: Total/NA  
Prep Batch: 159427

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit  | D | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--------------|-----------------|-------|---|-----|--------------|
| Lead    | 160              | F2                  | 124          | F3              | mg/Kg | ✱ | 26  | 20           |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## GC/MS VOA

### Prep Batch: 159133

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50672-1 - RA | Pipe 69 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-1      | Pipe 69 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-19     | Pipe 22 (2)      | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 159136

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-50672-2      | Pipe 68 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-3      | Pipe 57 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-4      | Pipe 58 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-4 - RA | Pipe 58 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-5      | Pipe 59 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-6      | Pipe 56 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-7      | Pipe 54 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-8      | Pipe 67 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-9      | DUP-5            | Total/NA  | Solid  | 5035   |            |
| 410-50672-10     | Pipe 19 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-11     | 941-P2 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-50672-12     | Pipe 18 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-13     | Pipe 23 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-14     | Pipe 24 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-15     | Pipe 25 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-16     | Pipe 74 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-17     | Pipe 20 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50672-18     | Pipe 21 (2)      | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 159582

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50672-2       | Pipe 68 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-3       | Pipe 57 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-4       | Pipe 58 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-5       | Pipe 59 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-6       | Pipe 56 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-7       | Pipe 54 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-8       | Pipe 67 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-9       | DUP-5                  | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-10      | Pipe 19 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-11      | 941-P2 (2)             | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-12      | Pipe 18 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-13      | Pipe 23 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-14      | Pipe 24 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-15      | Pipe 25 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-16      | Pipe 74 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-17      | Pipe 20 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| 410-50672-18      | Pipe 21 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| MB 410-159582/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-159582/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-159582/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 160023

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50672-1   | Pipe 69 (2)      | Total/NA  | Solid  | 8260C  | 159133     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### GC/MS VOA (Continued)

#### Analysis Batch: 160023 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50672-19      | Pipe 22 (2)            | Total/NA  | Solid  | 8260C  | 159133     |
| MB 410-160023/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160023/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160023/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 160096

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-50672-20      | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-160096/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-160096/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-160096/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

#### Analysis Batch: 160454

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50672-1 - RA  | Pipe 69 (2)            | Total/NA  | Solid  | 8260C  | 159133     |
| MB 410-160454/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160454/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160454/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 160576

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50672-4 - RA  | Pipe 58 (2)            | Total/NA  | Solid  | 8260C  | 159136     |
| MB 410-160576/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160576/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160576/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 159508

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50672-1        | Pipe 69 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-2        | Pipe 68 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-3        | Pipe 57 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-4        | Pipe 58 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-5        | Pipe 59 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-6        | Pipe 56 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-7        | Pipe 54 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-8        | Pipe 67 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-9        | DUP-5              | Total/NA  | Solid  | 3546   |            |
| 410-50672-10       | Pipe 19 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-11       | 941-P2 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-50672-12       | Pipe 18 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-13       | Pipe 23 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-14       | Pipe 24 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-15       | Pipe 25 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-16       | Pipe 74 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-17       | Pipe 20 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-18       | Pipe 21 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50672-19       | Pipe 22 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-159508/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-159508/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

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# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 159508 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-50672-3 MS  | Pipe 57 (2)      | Total/NA  | Solid  | 3546   |            |
| 410-50672-3 MSD | Pipe 57 (2)      | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 159845

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-159508/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 159508     |
| LCS 410-159508/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 159508     |

### Analysis Batch: 159966

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-50672-1     | Pipe 69 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-2     | Pipe 68 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-3     | Pipe 57 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-4     | Pipe 58 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-5     | Pipe 59 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-6     | Pipe 56 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-7     | Pipe 54 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-8     | Pipe 67 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-9     | DUP-5            | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-10    | Pipe 19 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-11    | 941-P2 (2)       | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-12    | Pipe 18 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-13    | Pipe 23 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-14    | Pipe 24 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-15    | Pipe 25 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-16    | Pipe 74 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-17    | Pipe 20 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-18    | Pipe 21 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-19    | Pipe 22 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-3 MS  | Pipe 57 (2)      | Total/NA  | Solid  | 8270D  | 159508     |
| 410-50672-3 MSD | Pipe 57 (2)      | Total/NA  | Solid  | 8270D  | 159508     |

## Metals

### Prep Batch: 159427

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50672-1   | Pipe 69 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-2   | Pipe 68 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-3   | Pipe 57 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-4   | Pipe 58 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-5   | Pipe 59 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-6   | Pipe 56 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-7   | Pipe 54 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-8   | Pipe 67 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-9   | DUP-5            | Total/NA  | Solid  | 3050B  |            |
| 410-50672-10  | Pipe 19 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-11  | 941-P2 (2)       | Total/NA  | Solid  | 3050B  |            |
| 410-50672-12  | Pipe 18 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-13  | Pipe 23 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-14  | Pipe 24 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50672-15  | Pipe 25 (2)      | Total/NA  | Solid  | 3050B  |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Metals (Continued)

#### Prep Batch: 159427 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50672-16       | Pipe 74 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50672-17       | Pipe 20 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50672-18       | Pipe 21 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50672-19       | Pipe 22 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-159427/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-159427/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-50672-6 MS     | Pipe 56 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50672-6 MSD    | Pipe 56 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50672-6 DU     | Pipe 56 (2)        | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 160481

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50672-1        | Pipe 69 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-2        | Pipe 68 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-3        | Pipe 57 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-4        | Pipe 58 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-5        | Pipe 59 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-6        | Pipe 56 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-7        | Pipe 54 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-8        | Pipe 67 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-9        | DUP-5              | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-10       | Pipe 19 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-11       | 941-P2 (2)         | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-12       | Pipe 18 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-13       | Pipe 23 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-14       | Pipe 24 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-15       | Pipe 25 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-16       | Pipe 74 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-17       | Pipe 20 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-18       | Pipe 21 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-19       | Pipe 22 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| MB 410-159427/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 159427     |
| LCS 410-159427/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-6 MS     | Pipe 56 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-6 MSD    | Pipe 56 (2)        | Total/NA  | Solid  | 6010C  | 159427     |
| 410-50672-6 DU     | Pipe 56 (2)        | Total/NA  | Solid  | 6010C  | 159427     |

### General Chemistry

#### Analysis Batch: 159245

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50672-3   | Pipe 57 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-4   | Pipe 58 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-13  | Pipe 23 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-17  | Pipe 20 (2)      | Total/NA  | Solid  | Moisture |            |

#### Analysis Batch: 159325

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50672-1   | Pipe 69 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-2   | Pipe 68 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-5   | Pipe 59 (2)      | Total/NA  | Solid  | Moisture |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### General Chemistry (Continued)

#### Analysis Batch: 159325 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50672-6   | Pipe 56 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-7   | Pipe 54 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-8   | Pipe 67 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-9   | DUP-5            | Total/NA  | Solid  | Moisture |            |
| 410-50672-10  | Pipe 19 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-11  | 941-P2 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-50672-12  | Pipe 18 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-14  | Pipe 24 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-15  | Pipe 25 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-16  | Pipe 74 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50672-18  | Pipe 21 (2)      | Total/NA  | Solid  | Moisture |            |

#### Analysis Batch: 159620

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50672-19  | Pipe 22 (2)      | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

**Client Sample ID: Pipe 69 (2)**

**Lab Sample ID: 410-50672-1**

**Date Collected: 08/09/21 13:05**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: Pipe 69 (2)**

**Lab Sample ID: 410-50672-1**

**Date Collected: 08/09/21 13:05**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

**Percent Solids: 48.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159133       | 08/11/21 11:05       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 160023       | 08/13/21 15:49       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 159133       | 08/11/21 11:05       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 50              | 160454       | 08/13/21 23:14       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 01:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:23       | XQY5    | ELLE |

**Client Sample ID: Pipe 68 (2)**

**Lab Sample ID: 410-50672-2**

**Date Collected: 08/09/21 13:15**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: Pipe 68 (2)**

**Lab Sample ID: 410-50672-2**

**Date Collected: 08/09/21 13:15**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

**Percent Solids: 58.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 16:12       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 01:30       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:39       | XQY5    | ELLE |

**Client Sample ID: Pipe 57 (2)**

**Lab Sample ID: 410-50672-3**

**Date Collected: 08/09/21 13:35**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159245       | 08/11/21 14:37       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 57 (2)

Lab Sample ID: 410-50672-3

Date Collected: 08/09/21 13:35

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 53.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 17:21       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 01:53       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:19       | XQY5    | ELLE |

## Client Sample ID: Pipe 58 (2)

Lab Sample ID: 410-50672-4

Date Collected: 08/09/21 13:50

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159245       | 08/11/21 14:37       | X4C8    | ELLE |

## Client Sample ID: Pipe 58 (2)

Lab Sample ID: 410-50672-4

Date Collected: 08/09/21 13:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 75.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 17:45       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 160576       | 08/15/21 19:24       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 03:00       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:26       | XQY5    | ELLE |

## Client Sample ID: Pipe 59 (2)

Lab Sample ID: 410-50672-5

Date Collected: 08/09/21 14:05

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

## Client Sample ID: Pipe 59 (2)

Lab Sample ID: 410-50672-5

Date Collected: 08/09/21 14:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 55.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 18:08       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 03:23       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:29       | XQY5    | ELLE |

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# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

**Client Sample ID: Pipe 56 (2)**

**Lab Sample ID: 410-50672-6**

**Date Collected: 08/09/21 14:20**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: Pipe 56 (2)**

**Lab Sample ID: 410-50672-6**

**Date Collected: 08/09/21 14:20**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

**Percent Solids: 83.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 18:31       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 03:45       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:01       | XQY5    | ELLE |

**Client Sample ID: Pipe 54 (2)**

**Lab Sample ID: 410-50672-7**

**Date Collected: 08/09/21 14:30**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: Pipe 54 (2)**

**Lab Sample ID: 410-50672-7**

**Date Collected: 08/09/21 14:30**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

**Percent Solids: 77.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 18:54       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 04:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:48       | XQY5    | ELLE |

**Client Sample ID: Pipe 67 (2)**

**Lab Sample ID: 410-50672-8**

**Date Collected: 08/09/21 14:50**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 67 (2)

Lab Sample ID: 410-50672-8

Date Collected: 08/09/21 14:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 80.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 19:17       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 04:30       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:07       | XQY5    | ELLE |

## Client Sample ID: DUP-5

Lab Sample ID: 410-50672-9

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

## Client Sample ID: DUP-5

Lab Sample ID: 410-50672-9

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 72.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 14:16       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 04:53       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:22       | XQY5    | ELLE |

## Client Sample ID: Pipe 19 (2)

Lab Sample ID: 410-50672-10

Date Collected: 08/10/21 09:05

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

## Client Sample ID: Pipe 19 (2)

Lab Sample ID: 410-50672-10

Date Collected: 08/10/21 09:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 75.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 19:40       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 05:15       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:26       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

**Client Sample ID: 941-P2 (2)**

**Lab Sample ID: 410-50672-11**

Date Collected: 08/10/21 09:20

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: 941-P2 (2)**

**Lab Sample ID: 410-50672-11**

Date Collected: 08/10/21 09:20

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 66.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 14:40       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 05:38       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:42       | XQY5    | ELLE |

**Client Sample ID: Pipe 18 (2)**

**Lab Sample ID: 410-50672-12**

Date Collected: 08/10/21 09:35

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: Pipe 18 (2)**

**Lab Sample ID: 410-50672-12**

Date Collected: 08/10/21 09:35

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 74.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 12:01       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 16:35       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 06:00       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:45       | XQY5    | ELLE |

**Client Sample ID: Pipe 23 (2)**

**Lab Sample ID: 410-50672-13**

Date Collected: 08/10/21 09:45

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159245       | 08/11/21 14:37       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 23 (2)

Lab Sample ID: 410-50672-13

Date Collected: 08/10/21 09:45

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 77.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 15:03       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 06:23       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:04       | XQY5    | ELLE |

## Client Sample ID: Pipe 24 (2)

Lab Sample ID: 410-50672-14

Date Collected: 08/10/21 09:55

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

## Client Sample ID: Pipe 24 (2)

Lab Sample ID: 410-50672-14

Date Collected: 08/10/21 09:55

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 72.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 15:26       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 06:45       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:16       | XQY5    | ELLE |

## Client Sample ID: Pipe 25 (2)

Lab Sample ID: 410-50672-15

Date Collected: 08/10/21 10:05

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

## Client Sample ID: Pipe 25 (2)

Lab Sample ID: 410-50672-15

Date Collected: 08/10/21 10:05

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 69.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 15:49       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 07:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 22:01       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

**Client Sample ID: Pipe 74 (2)**

**Lab Sample ID: 410-50672-16**

**Date Collected: 08/10/21 10:15**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

**Client Sample ID: Pipe 74 (2)**

**Lab Sample ID: 410-50672-16**

**Date Collected: 08/10/21 10:15**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

**Percent Solids: 80.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 20:03       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 07:30       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:58       | XQY5    | ELLE |

**Client Sample ID: Pipe 20 (2)**

**Lab Sample ID: 410-50672-17**

**Date Collected: 08/10/21 10:30**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159245       | 08/11/21 14:37       | X4C8    | ELLE |

**Client Sample ID: Pipe 20 (2)**

**Lab Sample ID: 410-50672-17**

**Date Collected: 08/10/21 10:30**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

**Percent Solids: 74.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 20:26       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 07:53       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:51       | XQY5    | ELLE |

**Client Sample ID: Pipe 21 (2)**

**Lab Sample ID: 410-50672-18**

**Date Collected: 08/10/21 10:40**

**Matrix: Solid**

**Date Received: 08/10/21 16:48**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159325       | 08/11/21 16:33       | X4C8    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

## Client Sample ID: Pipe 21 (2)

Lab Sample ID: 410-50672-18

Date Collected: 08/10/21 10:40

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 70.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159136       | 08/11/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 159582       | 08/12/21 16:58       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 08:15       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:54       | XQY5    | ELLE |

## Client Sample ID: Pipe 22 (2)

Lab Sample ID: 410-50672-19

Date Collected: 08/10/21 10:50

Matrix: Solid

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159620       | 08/12/21 09:46       | UGCW    | ELLE |

## Client Sample ID: Pipe 22 (2)

Lab Sample ID: 410-50672-19

Date Collected: 08/10/21 10:50

Matrix: Solid

Date Received: 08/10/21 16:48

Percent Solids: 76.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159133       | 08/11/21 11:05       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 160023       | 08/13/21 16:10       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 159508       | 08/12/21 10:21       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 159966       | 08/13/21 08:38       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159427       | 08/11/21 20:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160481       | 08/13/21 21:20       | XQY5    | ELLE |

## Client Sample ID: Trip Blank

Lab Sample ID: 410-50672-20

Date Collected: 08/10/21 00:00

Matrix: Water

Date Received: 08/10/21 16:48

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 160096       | 08/13/21 10:36       | UKAD    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50672-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-50672-1   | Pipe 69 (2)      | Solid  | 08/09/21 13:05 | 08/10/21 16:48 |
| 410-50672-2   | Pipe 68 (2)      | Solid  | 08/09/21 13:15 | 08/10/21 16:48 |
| 410-50672-3   | Pipe 57 (2)      | Solid  | 08/09/21 13:35 | 08/10/21 16:48 |
| 410-50672-4   | Pipe 58 (2)      | Solid  | 08/09/21 13:50 | 08/10/21 16:48 |
| 410-50672-5   | Pipe 59 (2)      | Solid  | 08/09/21 14:05 | 08/10/21 16:48 |
| 410-50672-6   | Pipe 56 (2)      | Solid  | 08/09/21 14:20 | 08/10/21 16:48 |
| 410-50672-7   | Pipe 54 (2)      | Solid  | 08/09/21 14:30 | 08/10/21 16:48 |
| 410-50672-8   | Pipe 67 (2)      | Solid  | 08/09/21 14:50 | 08/10/21 16:48 |
| 410-50672-9   | DUP-5            | Solid  | 08/10/21 00:00 | 08/10/21 16:48 |
| 410-50672-10  | Pipe 19 (2)      | Solid  | 08/10/21 09:05 | 08/10/21 16:48 |
| 410-50672-11  | 941-P2 (2)       | Solid  | 08/10/21 09:20 | 08/10/21 16:48 |
| 410-50672-12  | Pipe 18 (2)      | Solid  | 08/10/21 09:35 | 08/10/21 16:48 |
| 410-50672-13  | Pipe 23 (2)      | Solid  | 08/10/21 09:45 | 08/10/21 16:48 |
| 410-50672-14  | Pipe 24 (2)      | Solid  | 08/10/21 09:55 | 08/10/21 16:48 |
| 410-50672-15  | Pipe 25 (2)      | Solid  | 08/10/21 10:05 | 08/10/21 16:48 |
| 410-50672-16  | Pipe 74 (2)      | Solid  | 08/10/21 10:15 | 08/10/21 16:48 |
| 410-50672-17  | Pipe 20 (2)      | Solid  | 08/10/21 10:30 | 08/10/21 16:48 |
| 410-50672-18  | Pipe 21 (2)      | Solid  | 08/10/21 10:40 | 08/10/21 16:48 |
| 410-50672-19  | Pipe 22 (2)      | Solid  | 08/10/21 10:50 | 08/10/21 16:48 |
| 410-50672-20  | Trip Blank       | Water  | 08/10/21 00:00 | 08/10/21 16:48 |

## Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike

Lancaster, PA 17601

Phone 717-656-2300 Fax 717-656-2681

## Chain of Custody Record



eurofins

Environment Testing  
America

410-50672 Chain of Custody

C No  
0-30583-9562.4

|  |  |   |  |   |   |  |  |   |  |  |  |
|--|--|---|--|---|---|--|--|---|--|--|--|
| <b>Client Information</b>  |  | Sampler<br><b>JA/SP/DH</b>  |  | Lab PM<br>Carter, Amek A  |   | 410-50672 Chain of Custody   |  | C No<br>0-30583-9562.4  |  |  |  |
| Client Contact<br>Mark Schaeffer   |  | Phone   |  | E-Mail<br>Loran Carter@eurofinset.com   |   | State of Origin<br><b>PA</b>   |  | Page<br>Page 4 of 5   |  |  |  |
| Company<br>Stantec Consulting Corp.  |  | PWSD  |  | <b>Analysis Requested</b>   |   | Job #  |  | Preservation Codes:   |  |  |  |
| Address<br>1060 Andrew Drive Suite 140   |  | Due Date Requested:   |  | <div style="display: flex; justify-content: space-between;"> <div> <b>8260C - PA Combo of Leaded and Unleaded Gasoline</b><br/> <b>6010C, 8270D, Moisture</b><br/> <b>8260C_UST - PA Combo of Leaded and Unleaded Gasoline</b> </div> <div> <b>Final Number of Containers</b> </div> </div> |   | <div> A - HCL<br/>B - NaOH<br/>C - Zn Acetate<br/>D - Nitric Acid<br/>E - NaHSO4<br/>F - MeOH<br/>G - Amchlor<br/>H - Ascorbic Acid<br/>I - Ice<br/>J - DI Water<br/>K - EDTA<br/>L - EDA </div> <div> M - Hexane<br/>N - None<br/>O - AsNaO2<br/>P - Na2O4S<br/>Q - Na2SO3<br/>R - Na2S2O3<br/>S - H2SO4<br/>T - TSP Dodecahydrate<br/>U - Acetone<br/>V - MCAA<br/>W - pH 4-5<br/>Z - other (specify) </div> |  | Other:  |  |  |  |
| City<br>West Chester   |  | TAT Requested (days):<br><b>5 day</b>   |  |   |   | <div> <b>8260C - PA Combo of Leaded and Unleaded Gasoline</b><br/> <b>6010C, 8270D, Moisture</b><br/> <b>8260C_UST - PA Combo of Leaded and Unleaded Gasoline</b> </div>   |  |   |  |  |  |
| State, Zip<br>PA, 19380  |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |   |   |  |  |   |  |  |  |
| Phone  |  | PO #  |  |   |   |  |  |   |  |  |  |
| Email<br>mark.schaeffer@stantec.com  |  | Purchase Order Requested  |  |   |   |  |  |   |  |  |  |
| Project Name<br>PBF Logistics  |  | Project #<br>41007459   |  |   |   |  |  |   |  |  |  |
| Site<br><b>51st Street Terminal</b>  |  | SSOW#   |  |   |   |  |  |   |  |  |  |
| <b>Sample Identification</b>   |  | <b>Sample Date</b>  |  | <b>Sample Time</b>  |   | <b>Sample Type (C=Comp, G=grab)</b>  |  | <b>Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)</b> |  |  |  |
|  |  |   |  |   |   |  |  |   |  |  |  |
| Pipe <del>68</del> (2)   |  | 8/9/21  |  | 1305  |   | G  |  | Solid   |  |  |  |
| Pipe 68 (2)  |  | 8/9/21  |  | 1315  |   | G  |  | Solid   |  |  |  |
| Pipe 57 (2)  |  | 8/9/21  |  | 1335  |   | G  |  | Solid   |  |  |  |
| Pipe 58 (2)  |  | 8/9/21  |  | 1350  |   | G  |  | Solid   |  |  |  |
| Pipe 57 (2)  |  | 8/9/21  |  | 1405  |   | G  |  | Solid   |  |  |  |
| Pipe 56 (2)  |  | 8/9/21  |  | 1420  |   | G  |  | Solid   |  |  |  |
| Pipe 54 (2)  |  | 8/9/21  |  | 1430  |   | G  |  | Solid   |  |  |  |
| Pipe 67 (2)  |  | 8/9/21  |  | 1450  |   | G  |  | Water   |  |  |  |
| DUP - 5  |  | 8/10/21   |  | —   |   | G  |  | Water   |  |  |  |
| Pipe 19 (2)  |  | 8/10/21   |  | 0905  |   | G  |  | Water   |  |  |  |
| 941 - P2 (2)   |  | 8/10/21   |  | 0920  |   | G  |  | Water   |  |  |  |
| <b>Possible Hazard Identification</b>  |  |   |  |   | <b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>   |  |  |   |  |  |  |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |   |  |   | <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |  |   |  |  |  |
| Deliverable Requested: I, II, III, IV, Other (specify)   |  |   |  |   | Special Instructions/QC Requirements:   |  |  |   |  |  |  |
| Empty Kit Relinquished by:   |  | Date:   |  | Time:   |   | Method of Shipment:  |  |   |  |  |  |
| Relinquished by  |  | Date/Time<br>8/10/21 1105   |  | Company<br>Stantec  |   | Received by  |  | Date/Time<br>8/10/21 11:05                                      |  |  |  |
| Relinquished by  |  | Date/Time<br>8/10/21 1636   |  | Company   |   | Received by  |  | Date/Time   |  |  |  |
| Relinquished by  |  | Date/Time   |  | Company   |   | Received by  |  | Date/Time<br>8/10/21 1636                                       |  |  |  |
| Custody Seals Intact:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   |  | Custody Seal No.:   |  | Cooler Temperature(s) and Other Remarks:<br>1.6-4.1  8/10/21 1636   |   |  |  |   |  |  |  |

Ver 06/08/2021



Environment Testing,  
America

Ver 06/08/2021

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-50672-1

**Login Number: 50672**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

**List Number: 1**

**Creator: Jeremiah, Cory T**

| Question  | Answer | Comment                             |
|---|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.  | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.   | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.   | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.  | N/A    |                                     |
| COC is present.   | True   |                                     |
| COC is filled out in ink and legible.   | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.  | True   |                                     |
| Containers are not broken or leaking.   | True   |                                     |
| Sample collection date/times are provided.  | True   |                                     |
| Appropriate sample containers are used.   | True   |                                     |
| Sample bottles are completely filled.   | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.  | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?   | True   |                                     |
| Sample Preservation Verified.   | N/A    |                                     |
| Residual Chlorine Checked.  | N/A    |                                     |
| Sample custody seals are intact.  | True   |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-50879-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/17/2021 2:09:48 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter  
Project Manager  
8/17/2021 2:09:48 PM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *3        | ISTD response or retention time outside acceptable limits.   |
| ^c        | CCV Recovery is outside acceptance limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| F2        | MS/MSD RPD exceeds control limits  |
| FL        | MS and/or MSD recovery below control limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits   |
| F3        | Duplicate RPD exceeds the control limit   |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |

Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|--------------|---|
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                       |
| TNTC         | Too Numerous To Count   |

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## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Job ID: 410-50879-1

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-50879-1

#### Receipt

The samples were received on 8/11/2021 5:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 1.4°C

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-160689 recovered above the upper control limit for Bromomethane and Carbon disulfide. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: 941-P4 (3) (410-50879-2), Pipe 38 (2) (410-50879-13) and Dup-06 (410-50879-26). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: Pipe 34 (2) (410-50879-9). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: Pipe 40 (2) (410-50879-15). Elevated reporting limits (RLs) are provided.

Method 8260C: Internal standard (ISTD) response for t-Butyl alcohol-d10 for the following sample was outside acceptance criteria: Pipe 39 (2) (410-50879-14). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-160576 recovered outside acceptance criteria, low biased, for 1,2-Dichloroethane, Methyl tertiary butyl ether and Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: 2040-P5 (3) (410-50879-19). The sample(s) was re-analyzed and ISTD response was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

Method 8270D: Surrogate recovery was outside acceptance limits for the following matrix spike duplicate (MSD) sample: (410-50879-A-1-B MSD). The parent sample's and matrix spike (MS) surrogate recovery was within limits. The MSD sample has been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Client Sample ID: 941-P3 (3)

### Lab Sample ID: 410-50879-1

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Ethylbenzene           | 0.81   | J         | 9.4 | 0.75 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| 1,2-Dichloroethane     | 3.9    | J ^c      | 9.4 | 1.1  | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 2.2    | J         | 9.4 | 0.94 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Toluene                | 37     |           | 9.4 | 1.1  | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Xylenes, Total         | 14     | J         | 19  | 2.6  | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Benzene                | 46     |           | 9.4 | 0.94 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.9    | J         | 9.4 | 0.94 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 4.7    | J F2 FL   | 22  | 4.4  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 6.4    | J F2 FL   | 22  | 4.4  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene               | 8.5    | J F2 FL   | 22  | 4.4  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Phenanthrene           | 27     | F2 FL     | 22  | 5.3  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene                 | 12     | J F2 FL   | 22  | 4.4  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                   | 610    |           | 1.5 | 0.58 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

### Client Sample ID: 941-P4 (3)

### Lab Sample ID: 410-50879-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Benzo[a]anthracene   | 5.9    | J         | 21  | 4.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 6.4    | J         | 21  | 4.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 9.5    | J         | 21  | 4.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 7.5    | J         | 21  | 4.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene             | 12     | J         | 21  | 4.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Phenanthrene         | 23     |           | 21  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene               | 8.7    | J         | 21  | 4.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                 | 270    |           | 1.5 | 0.60 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

### Client Sample ID: 941-P5 (3)

### Lab Sample ID: 410-50879-3

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| 1,2-Dichloroethane     | 6.5    | J         | 9.5 | 1.1  | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1.3    | J         | 9.5 | 0.95 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Toluene                | 30     |           | 9.5 | 1.1  | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Xylenes, Total         | 8.5    | J         | 19  | 2.7  | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Benzene                | 38     |           | 9.5 | 0.95 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.4    | J         | 9.5 | 0.95 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 6.6    | J         | 21  | 4.2  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 6.8    | J         | 21  | 4.2  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 11     | J         | 21  | 4.2  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 9.3    | J         | 21  | 4.2  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene               | 16     | J         | 21  | 4.2  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Phenanthrene           | 23     |           | 21  | 5.0  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene                 | 12     | J         | 21  | 4.2  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                   | 37     |           | 1.5 | 0.62 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

### Client Sample ID: 941-P1 (3)

### Lab Sample ID: 410-50879-4

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Benzo[a]anthracene   | 4.6    | J         | 20  | 3.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 4.0    | J         | 20  | 3.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5.3    | J         | 20  | 3.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene             | 4.8    | J         | 20  | 3.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                 | 7.9    |           | 1.5 | 0.60 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Client Sample ID: Pipe-32 (2)

### Lab Sample ID: 410-50879-5

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 1.2    | J ^c      | 9.6 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 0.98   | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 3.0    | J         | 9.6 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 5.1    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.2    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 14     | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 5.9    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 5.7    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 6.4    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 8.4    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 7.9    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 100    |           | 23  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 6.5    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 95     |           | 2.0 | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 33 (2)

### Lab Sample ID: 410-50879-6

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane   | 1.8    | J         | 10  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene              | 6.6    | J         | 10  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total       | 3.3    | J         | 20  | 2.8  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 9.1    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 51     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 40     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 29     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 89     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 64     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 65     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 12     | J         | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 84     |           | 25  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 42     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 920    |           | 2.1 | 0.83 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2045-P3 (3)

### Lab Sample ID: 410-50879-7

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 2.0    | J         | 10  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 7.5    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene   | 5.6    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 7.5    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5.7    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 5.9    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 9.3    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 28     |           | 23  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 14     |           | 1.4 | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2045-P1 (3)

### Lab Sample ID: 410-50879-8

| Analyte        | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene   | 0.73   | J         | 7.5 | 0.60 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene        | 1.2    | J         | 7.5 | 0.90 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total | 2.7    | J         | 15  | 2.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Client Sample ID: 2045-P1 (3) (Continued)

Lab Sample ID: 410-50879-8

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 11     |           | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 18     | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 4.5    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5.3    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.9    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 5.3    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 23     |           | 23  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 100    |           | 1.8 | 0.71 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 34 (2)

Lab Sample ID: 410-50879-9

| Analyte                | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 100    | J         | 1000 | 83   | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 610    | J         | 1000 | 100  | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 750    | J         | 2100 | 290  | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1000   |           | 1000 | 100  | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| Anthracene             | 100    |           | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 12     | J         | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 16     | J         | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 14     | J         | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 130    |           | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 17     | J         | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 26     |           | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 27     |           | 21   | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 36     |           | 21   | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 79     |           | 1.7  | 0.67 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 35 (2)

Lab Sample ID: 410-50879-10

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 1.4    | J ^c      | 11  | 1.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 3.6    | J         | 11  | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 4.8    | J         | 11  | 1.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 3.5    | J         | 22  | 3.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 7.4    | J         | 11  | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 5.8    | J         | 11  | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 9.0    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 6.1    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 32     |           | 23  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 17     |           | 1.4 | 0.57 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 36 (2)

Lab Sample ID: 410-50879-11

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 1.8    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 9.3    | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 5.5    | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5.6    | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 25     |           | 24  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 26     |           | 1.7 | 0.68 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Client Sample ID: Pipe 37 (2)

Lab Sample ID: 410-50879-12

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 30     |           | 2.3 | 0.91 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 38 (2)

Lab Sample ID: 410-50879-13

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 21     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 15     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 22     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 20     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 24     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 29     | J         | 31  | 7.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 33     |           | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 170    |           | 1.9 | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 39 (2)

Lab Sample ID: 410-50879-14

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 14     | J         | 28  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 11     | J         | 28  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 7.7    | J         | 28  | 6.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 64     |           | 2.1 | 0.85 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 40 (2)

Lab Sample ID: 410-50879-15

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene         | 63     | J         | 710  | 57   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene              | 160    | J         | 710  | 85   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total       | 210    | J         | 1400 | 200  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene   | 16     | J         | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 9.4    | J         | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 16     | J         | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 16     | J         | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 25     |           | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 87     |           | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 150    |           | 25   | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 120    |           | 25   | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 28     |           | 1.9  | 0.74 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2040-P2 (3)

Lab Sample ID: 410-50879-16

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 0.95   | J         | 7.1 | 0.86 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 1.3    | J         | 7.1 | 0.71 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene   | 7.1    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 8.6    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 8.9    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.5    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 8.1    | J         | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 6.0    | J         | 23  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 1200   |           | 1.9 | 0.75 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Client Sample ID: 2040-P3 (3)

### Lab Sample ID: 410-50879-17

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 14     | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 40     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 33     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 49     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 28     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 46     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 6.2    | J         | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 66     |           | 20  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 70     |           | 20  | 4.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 13     |           | 1.3 | 0.52 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2040-P4 (3)

### Lab Sample ID: 410-50879-18

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 4.7    | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 16     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 16     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 22     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 16     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 27     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 55     |           | 20  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 22     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 40     |           | 1.2 | 0.50 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2040-P5 (3)

### Lab Sample ID: 410-50879-19

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 5.1    | J         | 9.4 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 4.5    | J         | 9.4 | 0.94 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 22     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 26     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 16     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 36     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 19     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 120    |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 16     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 120    |           | 20  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 41     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 21     |           | 1.3 | 0.54 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 31 (2)

### Lab Sample ID: 410-50879-20

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene   | 14     | J         | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene | 7.6    | J         | 32  | 7.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 31     |           | 2.0 | 0.80 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 26 (2)

### Lab Sample ID: 410-50879-21

| Analyte            | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Anthracene         | 17     | J         | 22 | 4.4 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene | 12     | J         | 22 | 4.4 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene     | 8.9    | J         | 22 | 4.4 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Client Sample ID: Pipe 26 (2) (Continued)

Lab Sample ID: 410-50879-21

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 13     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 12     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 13     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 26     |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 20     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 32     | F2        | 1.8 | 0.71 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 4847-P4 (3)

Lab Sample ID: 410-50879-22

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Pyrene  | 5.1    | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead    | 3.6    |           | 1.4 | 0.56 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2040-P1 (3)

Lab Sample ID: 410-50879-23

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 11     | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 5.8    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 5.6    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 7.9    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.3    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 7.5    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 26     |           | 23  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 7.9    | J         | 23  | 4.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 250    |           | 1.7 | 0.68 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 28 (2)

Lab Sample ID: 410-50879-24

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene | 2.8    | J         | 9.3 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene | 1.4    | J         | 9.3 | 0.93 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Lead    | 14     |           | 1.7 | 0.67 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Trip Blank

Lab Sample ID: 410-50879-25

No Detections.

### Client Sample ID: Dup-06

Lab Sample ID: 410-50879-26

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 24     | J         | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 14     | J         | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 26     |           | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 17     | J         | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 39     |           | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 100    |           | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 160    |           | 26  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 100    |           | 26  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 20     |           | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 941-P3 (3)

Lab Sample ID: 410-50879-1

Date Collected: 08/10/21 11:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 74.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 0.81   | J         | 9.4 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| 1,2-Dichloroethane          | 3.9    | J ^c      | 9.4 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| 1,3,5-Trimethylbenzene      | 2.2    | J         | 9.4 | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Toluene                     | 37     |           | 9.4 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Xylenes, Total              | 14     | J         | 19  | 2.6  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 9.4 | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Benzene                     | 46     |           | 9.4 | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Naphthalene                 | ND     | ^c        | 9.4 | 3.8  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| 1,2,4-Trimethylbenzene      | 1.9    | J         | 9.4 | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Isopropylbenzene            | ND     |           | 9.4 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.4 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 22:03 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/12/21 11:20 | 08/15/21 22:03 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/12/21 11:20 | 08/15/21 22:03 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     | F2 FL     | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Benzo[a]anthracene   | 4.7    | J F2 FL   | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Benzo[a]pyrene       | ND     | F2 FL     | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Benzo[b]fluoranthene | 6.4    | J F2 FL   | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Benzo[g,h,i]perylene | ND     | F2 FL     | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Chrysene             | 8.5    | J F2 FL   | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Fluorene             | ND     | F2 FL     | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Phenanthrene         | 27     | F2 FL     | 22 | 5.3 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Pyrene               | 12     | J F2 FL   | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 00:07 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 72        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 00:07 | 1       |
| p-Terphenyl-d14 (Surr)  | 70        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 00:07 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 610    |           | 1.5 | 0.58 | mg/Kg | ✱ | 08/12/21 13:44 | 08/13/21 10:09 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.2   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 941-P4 (3)

Lab Sample ID: 410-50879-2

Date Collected: 08/10/21 11:20

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 79.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 560 | 45  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| 1,2-Dichloroethane | ND     |           | 560 | 67  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 941-P4 (3)

Lab Sample ID: 410-50879-2

Date Collected: 08/10/21 11:20

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 79.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 560      | 56  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Toluene                      | ND        |           | 560      | 67  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Xylenes, Total               | ND        |           | 1100     | 160 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 560      | 56  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Benzene                      | ND        |           | 560      | 56  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Naphthalene                  | ND        |           | 560      | 220 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| 1,2,4-Trimethylbenzene       | ND        |           | 560      | 56  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Isopropylbenzene             | ND        |           | 560      | 45  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| 1,2-Dibromoethane            | ND        |           | 560      | 45  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 86        |           | 54 - 135 |     |       |   | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 |     |       |   | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Dibromofluoromethane (Surr)  | 83        |           | 50 - 141 |     |       |   | 08/12/21 11:19 | 08/16/21 17:42 | 50      |
| Toluene-d8 (Surr)            | 81        |           | 52 - 141 |     |       |   | 08/12/21 11:19 | 08/16/21 17:42 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Benzo[a]anthracene      | 5.9 J     |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Benzo[a]pyrene          | 6.4 J     |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Benzo[b]fluoranthene    | 9.5 J     |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Benzo[g,h,i]perylene    | 7.5 J     |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Chrysene                | 12 J      |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Fluorene                | ND        |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Phenanthrene            | 23        |           | 21       | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Pyrene                  | 8.7 J     |           | 21       | 4.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 73        |           | 39 - 100 |     |       |   | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  |     |       |   | 08/13/21 10:00 | 08/14/21 01:14 | 1       |
| p-Terphenyl-d14 (Surr)  | 74        |           | 45 - 108 |     |       |   | 08/13/21 10:00 | 08/14/21 01:14 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 270    |           | 1.5 | 0.60 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:46 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.2   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 941-P5 (3)

Lab Sample ID: 410-50879-3

Date Collected: 08/10/21 11:30

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 79.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 9.5 | 0.76 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| 1,2-Dichloroethane     | 6.5 J  |           | 9.5 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| 1,3,5-Trimethylbenzene | 1.3 J  |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| Toluene                | 30     |           | 9.5 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 941-P5 (3)

Lab Sample ID: 410-50879-3

Date Collected: 08/10/21 11:30

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 79.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                       | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>         | <b>8.5</b> | <b>J</b>  | 19  | 2.7  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| Methyl tertiary butyl ether   | ND         |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| <b>Benzene</b>                | <b>38</b>  |           | 9.5 | 0.95 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| Naphthalene                   | ND         |           | 9.5 | 3.8  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| <b>1,2,4-Trimethylbenzene</b> | <b>1.4</b> | <b>J</b>  | 9.5 | 0.95 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| Isopropylbenzene              | ND         |           | 9.5 | 0.76 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| 1,2-Dibromoethane             | ND         |           | 9.5 | 0.76 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 14:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 14:53 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 14:53 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene                  | ND         |           | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>6.6</b> | <b>J</b>  | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>6.8</b> | <b>J</b>  | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>11</b>  | <b>J</b>  | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>9.3</b> | <b>J</b>  | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Chrysene</b>             | <b>16</b>  | <b>J</b>  | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| Fluorene                    | ND         |           | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Phenanthrene</b>         | <b>23</b>  |           | 21 | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| <b>Pyrene</b>               | <b>12</b>  | <b>J</b>  | 21 | 4.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 01:37 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 73        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 01:37 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 01:37 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>37</b> |           | 1.5 | 0.62 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 21:09 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>20.8</b> |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 941-P1 (3)

Lab Sample ID: 410-50879-4

Date Collected: 08/10/21 11:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 83.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 3.8 | 0.31 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| 1,2-Dichloroethane          | ND     |           | 3.8 | 0.46 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 3.8 | 0.38 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Toluene                     | ND     |           | 3.8 | 0.46 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Xylenes, Total              | ND     |           | 7.6 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Methyl tertiary butyl ether | ND     |           | 3.8 | 0.38 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 941-P1 (3)

Lab Sample ID: 410-50879-4

Date Collected: 08/10/21 11:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 83.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 3.8 | 0.38 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Naphthalene            | ND     |           | 3.8 | 1.5  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 3.8 | 0.38 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Isopropylbenzene       | ND     |           | 3.8 | 0.31 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| 1,2-Dibromoethane      | ND     |           | 3.8 | 0.31 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:15 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 15:15 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 15:15 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Benzo[a]anthracene   | 4.6    | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Benzo[a]pyrene       | 4.0    | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Benzo[b]fluoranthene | 5.3    | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Chrysene             | 4.8    | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Fluorene             | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Phenanthrene         | ND     |           | 20 | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Pyrene               | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:00 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 02:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 02:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 7.9    |           | 1.5 | 0.60 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:04 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.7   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe-32 (2)

Lab Sample ID: 410-50879-5

Date Collected: 08/10/21 12:05

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 70.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| 1,2-Dichloroethane          | 1.2    | J ^c      | 9.6 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| 1,3,5-Trimethylbenzene      | 0.98   | J         | 9.6 | 0.96 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Toluene                     | 3.0    | J         | 9.6 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Xylenes, Total              | ND     |           | 19  | 2.7  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 9.6 | 0.96 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Benzene                     | 5.1    | J         | 9.6 | 0.96 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Naphthalene                 | ND     | ^c        | 9.6 | 3.8  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe-32 (2)

Lab Sample ID: 410-50879-5

Date Collected: 08/10/21 12:05

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 70.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 1.2       | J         | 9.6      | 0.96 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Isopropylbenzene             | ND        |           | 9.6      | 0.77 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| 1,2-Dibromoethane            | ND        |           | 9.6      | 0.77 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 |      |       |   | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| 4-Bromofluorobenzene (Surr)  | 79        |           | 50 - 131 |      |       |   | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 |      |       |   | 08/12/21 11:20 | 08/15/21 23:56 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 |      |       |   | 08/12/21 11:20 | 08/15/21 23:56 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 14        | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Benzo[a]anthracene      | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Benzo[a]pyrene          | 5.9       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Benzo[b]fluoranthene    | 5.7       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Benzo[g,h,i]perylene    | 6.4       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Chrysene                | 8.4       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Fluorene                | 7.9       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Phenanthrene            | 100       |           | 23       | 5.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Pyrene                  | 6.5       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 71        |           | 39 - 100 |     |       |   | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  |     |       |   | 08/13/21 10:00 | 08/14/21 02:22 | 1       |
| p-Terphenyl-d14 (Surr)  | 70        |           | 45 - 108 |     |       |   | 08/13/21 10:00 | 08/14/21 02:22 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 95     |           | 2.0 | 0.78 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:08 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 29.7   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 33 (2)

Lab Sample ID: 410-50879-6

Date Collected: 08/10/21 12:15

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 66.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| 1,2-Dichloroethane          | 1.8    | J         | 10 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Toluene                     | 6.6    | J         | 10 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Xylenes, Total              | 3.3    | J         | 20 | 2.8  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Benzene                     | 9.1    | J         | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Naphthalene                 | ND     |           | 10 | 4.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 33 (2)

Lab Sample ID: 410-50879-6

Date Collected: 08/10/21 12:15

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 66.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 10       | 0.80 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 |      |       |   | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 |      |       |   | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 |      |       |   | 08/12/21 11:20 | 08/16/21 15:38 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 |      |       |   | 08/12/21 11:20 | 08/16/21 15:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 51        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Benzo[a]anthracene      | 40        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Benzo[a]pyrene          | 29        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Benzo[b]fluoranthene    | 89        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Benzo[g,h,i]perylene    | 64        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Chrysene                | 65        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Fluorene                | 12 J      |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Phenanthrene            | 84        |           | 25       | 6.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Pyrene                  | 42        |           | 25       | 5.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 77        |           | 39 - 100 |     |       |   | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  |     |       |   | 08/13/21 10:00 | 08/14/21 02:44 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 |     |       |   | 08/13/21 10:00 | 08/14/21 02:44 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 920    |           | 2.1 | 0.83 | mg/Kg | ✱ | 08/12/21 13:44 | 08/13/21 09:57 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 33.9   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 2045-P3 (3)

Lab Sample ID: 410-50879-7

Date Collected: 08/10/21 12:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.82 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| 1,2-Dichloroethane          | ND     | ^c        | 10 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Toluene                     | 2.0 J  |           | 10 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Xylenes, Total              | ND     |           | 20 | 2.9  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Benzene                     | 7.5 J  |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Naphthalene                 | ND     | ^c        | 10 | 4.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.82 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| 1,2-Dibromoethane           | ND     |           | 10 | 0.82 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:10 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 2045-P3 (3)

Lab Sample ID: 410-50879-7

Date Collected: 08/10/21 12:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.6

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/12/21 11:20 | 08/15/21 20:10 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 08/12/21 11:20 | 08/15/21 20:10 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Benzo[a]anthracene   | 5.6    | J         | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Benzo[a]pyrene       | 7.5    | J         | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Benzo[b]fluoranthene | 5.7    | J         | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Benzo[g,h,i]perylene | 5.9    | J         | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Chrysene             | 9.3    | J         | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Fluorene             | ND     |           | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Phenanthrene         | 28     |           | 23 | 5.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Pyrene               | ND     |           | 23 | 4.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:07 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 73        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 03:07 | 1       |
| p-Terphenyl-d14 (Surr)  | 75        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 03:07 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 14     |           | 1.4 | 0.57 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:55 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.4   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 2045-P1 (3)

Lab Sample ID: 410-50879-8

Date Collected: 08/10/21 12:35

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 72.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 0.73   | J         | 7.5 | 0.60 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| 1,2-Dichloroethane          | ND     | ^c        | 7.5 | 0.90 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.5 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Toluene                     | 1.2    | J         | 7.5 | 0.90 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Xylenes, Total              | 2.7    | J         | 15  | 2.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 7.5 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Benzene                     | 11     |           | 7.5 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Naphthalene                 | ND     | ^c        | 7.5 | 3.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.5 | 0.75 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Isopropylbenzene            | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 21:40 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/12/21 11:20 | 08/15/21 21:40 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/12/21 11:20 | 08/15/21 21:40 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 2045-P1 (3)

Lab Sample ID: 410-50879-8

Date Collected: 08/10/21 12:35

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 72.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 93        |           | 52 - 141 | 08/12/21 11:20 | 08/15/21 21:40 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 18     | J         | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Benzo[a]anthracene   | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Benzo[a]pyrene       | 4.5    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Benzo[b]fluoranthene | 5.3    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Benzo[g,h,i]perylene | 8.9    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Chrysene             | 5.3    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Fluorene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Phenanthrene         | 23     |           | 23 | 5.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Pyrene               | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 03:29 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 72        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 03:29 | 1       |
| p-Terphenyl-d14 (Surr)  | 67        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 03:29 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 100    |           | 1.8 | 0.71 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:01 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.3   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 34 (2)

Lab Sample ID: 410-50879-9

Date Collected: 08/10/21 12:55

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 77.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 100    | J         | 1000 | 83  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| 1,2-Dichloroethane          | ND     |           | 1000 | 120 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| 1,3,5-Trimethylbenzene      | 610    | J         | 1000 | 100 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Toluene                     | ND     |           | 1000 | 120 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Xylenes, Total              | 750    | J         | 2100 | 290 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Methyl tertiary butyl ether | ND     |           | 1000 | 100 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Benzene                     | ND     |           | 1000 | 100 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Naphthalene                 | ND     |           | 1000 | 410 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| 1,2,4-Trimethylbenzene      | 1000   |           | 1000 | 100 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Isopropylbenzene            | ND     |           | 1000 | 83  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| 1,2-Dibromoethane           | ND     |           | 1000 | 83  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:03 | 100     |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 92        |           | 54 - 135 | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Dibromofluoromethane (Surr)  | 88        |           | 50 - 141 | 08/12/21 11:19 | 08/16/21 18:03 | 100     |
| Toluene-d8 (Surr)            | 83        |           | 52 - 141 | 08/12/21 11:19 | 08/16/21 18:03 | 100     |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 34 (2)

Lab Sample ID: 410-50879-9

Date Collected: 08/10/21 12:55

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 77.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 100    |           | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Benzo[a]anthracene   | 12     | J         | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Benzo[a]pyrene       | 16     | J         | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Benzo[b]fluoranthene | 14     | J         | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Benzo[g,h,i]perylene | 130    |           | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Chrysene             | 17     | J         | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Fluorene             | 26     |           | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Phenanthrene         | 27     |           | 21 | 5.1 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Pyrene               | 36     |           | 21 | 4.3 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 03:52 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 67        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| Nitrobenzene-d5 (Surr)  | 60        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 03:52 | 1       |
| p-Terphenyl-d14 (Surr)  | 74        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 03:52 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 79     |           | 1.7 | 0.67 | mg/Kg | ☆ | 08/12/21 07:35 | 08/16/21 20:36 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 22.2   |           | 1.0 | 1.0 | %    | — |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 35 (2)

Lab Sample ID: 410-50879-10

Date Collected: 08/10/21 13:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 72.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 11 | 0.88 | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| 1,2-Dichloroethane          | 1.4    | J ^c      | 11 | 1.3  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| 1,3,5-Trimethylbenzene      | 3.6    | J         | 11 | 1.1  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Toluene                     | 4.8    | J         | 11 | 1.3  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Xylenes, Total              | 3.5    | J         | 22 | 3.1  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 11 | 1.1  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Benzene                     | 7.4    | J         | 11 | 1.1  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Naphthalene                 | ND     | ^c        | 11 | 4.4  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| 1,2,4-Trimethylbenzene      | 5.8    | J         | 11 | 1.1  | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Isopropylbenzene            | ND     |           | 11 | 0.88 | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| 1,2-Dibromoethane           | ND     |           | 11 | 0.88 | ug/Kg | ☆ | 08/12/21 11:20 | 08/15/21 22:48 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/12/21 11:20 | 08/15/21 22:48 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 08/12/21 11:20 | 08/15/21 22:48 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene         | 9.0    | J         | 23 | 4.5 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Benzo[a]anthracene | ND     |           | 23 | 4.5 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 35 (2)

Lab Sample ID: 410-50879-10

Date Collected: 08/10/21 13:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 72.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene       | 6.1    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Benzo[b]fluoranthene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Chrysene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Fluorene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Phenanthrene         | 32     |           | 23 | 5.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Pyrene               | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:14 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 72        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 04:14 | 1       |
| p-Terphenyl-d14 (Surr)  | 71        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 04:14 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 17     |           | 1.4 | 0.57 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:33 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.3   |           | 1.0 | 1.0 | %    | - |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 36 (2)

Lab Sample ID: 410-50879-11

Date Collected: 08/10/21 13:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 69.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.81 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| 1,2-Dichloroethane          | ND     | ^c        | 10 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Toluene                     | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Xylenes, Total              | ND     |           | 20 | 2.8  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Benzene                     | 1.8    | J         | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Naphthalene                 | ND     | ^c        | 10 | 4.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.81 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| 1,2-Dibromoethane           | ND     |           | 10 | 0.81 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 23:11 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 115       |           | 54 - 135 | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| 4-Bromofluorobenzene (Surr)  | 80        |           | 50 - 131 | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/12/21 11:20 | 08/15/21 23:11 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/12/21 11:20 | 08/15/21 23:11 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 9.3    | J         | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Benzo[a]anthracene   | 5.5    | J         | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Benzo[a]pyrene       | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Benzo[b]fluoranthene | 5.6    | J         | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 36 (2)

Lab Sample ID: 410-50879-11

Date Collected: 08/10/21 13:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 69.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Chrysene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Fluorene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Phenanthrene         | 25     |           | 24 | 5.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Pyrene               | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 04:37 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 04:37 | 1       |
| p-Terphenyl-d14 (Surr)  | 77        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 04:37 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 26     |           | 1.7 | 0.68 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:17 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 30.8   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 37 (2)

Lab Sample ID: 410-50879-12

Date Collected: 08/10/21 13:55

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 53.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 11 | 0.88 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| 1,2-Dichloroethane          | ND     | ^c        | 11 | 1.3  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Toluene                     | ND     |           | 11 | 1.3  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Xylenes, Total              | ND     |           | 22 | 3.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Methyl tertiary butyl ether | ND     | ^c        | 11 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Benzene                     | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Naphthalene                 | ND     | ^c        | 11 | 4.4  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Isopropylbenzene            | ND     |           | 11 | 0.88 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| 1,2-Dibromoethane           | ND     |           | 11 | 0.88 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:32 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 117       |           | 54 - 135 | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/12/21 11:20 | 08/15/21 20:32 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 08/12/21 11:20 | 08/15/21 20:32 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Benzo[a]anthracene   | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Benzo[a]pyrene       | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Benzo[b]fluoranthene | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Chrysene             | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 37 (2)

Lab Sample ID: 410-50879-12

Date Collected: 08/10/21 13:55

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 53.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Fluorene                | ND        |           | 31       | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Phenanthrene            | ND        |           | 31       | 7.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Pyrene                  | ND        |           | 31       | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 78        |           | 39 - 100 |     |       |   | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  |     |       |   | 08/13/21 10:00 | 08/14/21 05:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 |     |       |   | 08/13/21 10:00 | 08/14/21 05:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 30     |           | 2.3 | 0.91 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 21:05 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 46.4   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 38 (2)

Lab Sample ID: 410-50879-13

Date Collected: 08/10/21 14:05

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 53.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 800      | 64  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| 1,2-Dichloroethane           | ND        |           | 800      | 96  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| 1,3,5-Trimethylbenzene       | ND        |           | 800      | 80  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Toluene                      | ND        |           | 800      | 96  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Xylenes, Total               | ND        |           | 1600     | 220 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 800      | 80  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Benzene                      | ND        |           | 800      | 80  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Naphthalene                  | ND        |           | 800      | 320 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| 1,2,4-Trimethylbenzene       | ND        |           | 800      | 80  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Isopropylbenzene             | ND        |           | 800      | 64  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| 1,2-Dibromoethane            | ND        |           | 800      | 64  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 58        |           | 54 - 135 |     |       |   | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| 4-Bromofluorobenzene (Surr)  | 73        |           | 50 - 131 |     |       |   | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Dibromofluoromethane (Surr)  | 47        | S1-       | 50 - 141 |     |       |   | 08/12/21 11:19 | 08/16/21 18:23 | 50      |
| Toluene-d8 (Surr)            | 42        | S1-       | 52 - 141 |     |       |   | 08/12/21 11:19 | 08/16/21 18:23 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 21     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Benzo[a]anthracene   | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Benzo[a]pyrene       | 15     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Benzo[b]fluoranthene | 22     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Benzo[g,h,i]perylene | 20     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Chrysene             | 24     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Fluorene             | ND     |           | 31 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Phenanthrene         | 29     | J         | 31 | 7.4 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 38 (2)

Lab Sample ID: 410-50879-13

Date Collected: 08/10/21 14:05

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 53.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | 33        |           | 31       | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 71        |           | 39 - 100 |     |       |   | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  |     |       |   | 08/13/21 10:00 | 08/14/21 05:22 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 |     |       |   | 08/13/21 10:00 | 08/14/21 05:22 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 170    |           | 1.9 | 0.78 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:58 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 46.2   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 39 (2)

Lab Sample ID: 410-50879-14

Date Collected: 08/10/21 14:20

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 59.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 11       | 0.88 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| 1,2-Dichloroethane           | ND        | ^c        | 11       | 1.3  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 11       | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Toluene                      | ND        |           | 11       | 1.3  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Xylenes, Total               | ND        |           | 22       | 3.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Methyl tertiary butyl ether  | ND        | ^c        | 11       | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Benzene                      | ND        |           | 11       | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Naphthalene                  | ND        | ^c        | 11       | 4.4  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 11       | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Isopropylbenzene             | ND        |           | 11       | 0.88 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| 1,2-Dibromoethane            | ND        |           | 11       | 0.88 | ug/Kg | ✱ | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 118       |           | 54 - 135 |      |       |   | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 |      |       |   | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 |      |       |   | 08/12/21 11:20 | 08/15/21 20:55 | 1       |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 |      |       |   | 08/12/21 11:20 | 08/15/21 20:55 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 14     | J         | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Benzo[a]anthracene   | ND     |           | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Benzo[a]pyrene       | ND     |           | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Benzo[b]fluoranthene | ND     |           | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Benzo[g,h,i]perylene | 11     | J         | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Chrysene             | ND     |           | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Fluorene             | ND     |           | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Phenanthrene         | 7.7    | J         | 28 | 6.6 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Pyrene               | ND     |           | 28 | 5.5 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 05:45 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Client Sample ID: Pipe 39 (2)

Date Collected: 08/10/21 14:20

Date Received: 08/11/21 17:52

## Lab Sample ID: 410-50879-14

Matrix: Solid

Percent Solids: 59.6

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 78        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 05:45 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 05:45 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 64     |           | 2.1 | 0.85 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:30 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 40.4   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

## Client Sample ID: Pipe 40 (2)

Date Collected: 08/10/21 14:35

Date Received: 08/11/21 17:52

## Lab Sample ID: 410-50879-15

Matrix: Solid

Percent Solids: 66.9

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 63     | J         | 710  | 57  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| 1,2-Dichloroethane          | ND     |           | 710  | 85  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 710  | 71  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Toluene                     | 160    | J         | 710  | 85  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Xylenes, Total              | 210    | J         | 1400 | 200 | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Methyl tertiary butyl ether | ND     |           | 710  | 71  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Benzene                     | ND     |           | 710  | 71  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Naphthalene                 | ND     |           | 710  | 280 | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 710  | 71  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Isopropylbenzene            | ND     |           | 710  | 57  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| 1,2-Dibromoethane           | ND     |           | 710  | 57  | ug/Kg | ✱ | 08/12/21 11:19 | 08/17/21 11:41 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Dibromofluoromethane (Surr)  | 95        |           | 50 - 141 | 08/12/21 11:19 | 08/17/21 11:41 | 50      |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 08/12/21 11:19 | 08/17/21 11:41 | 50      |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Benzo[a]anthracene   | 16     | J         | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Benzo[a]pyrene       | 9.4    | J         | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Benzo[b]fluoranthene | 16     | J         | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Benzo[g,h,i]perylene | 16     | J         | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Chrysene             | 25     |           | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Fluorene             | 87     |           | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Phenanthrene         | 150    |           | 25 | 5.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Pyrene               | 120    |           | 25 | 4.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:07 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 62        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| Nitrobenzene-d5 (Surr)  | 60        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 06:07 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 06:07 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Client Sample ID: Pipe 40 (2)

Lab Sample ID: 410-50879-15

Date Collected: 08/10/21 14:35

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 66.9

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 28     |           | 1.9 | 0.74 | mg/Kg | ☆ | 08/12/21 07:35 | 08/16/21 21:02 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 33.1   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

## Client Sample ID: 2040-P2 (3)

Lab Sample ID: 410-50879-16

Date Collected: 08/11/21 08:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.2

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.1 | 0.57 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.1 | 0.86 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.1 | 0.71 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Toluene                     | 0.95   | J         | 7.1 | 0.86 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Xylenes, Total              | ND     |           | 14  | 2.0  | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.1 | 0.71 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Benzene                     | 1.3    | J         | 7.1 | 0.71 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Naphthalene                 | ND     |           | 7.1 | 2.9  | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.1 | 0.71 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Isopropylbenzene            | ND     |           | 7.1 | 0.57 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.1 | 0.57 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 17:11 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 17:11 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 17:11 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Benzo[a]anthracene   | 7.1    | J         | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Benzo[a]pyrene       | 8.6    | J         | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Benzo[b]fluoranthene | 8.9    | J         | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Benzo[g,h,i]perylene | 8.5    | J         | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Chrysene             | 8.1    | J         | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Fluorene             | ND     |           | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Phenanthrene         | 6.0    | J         | 23 | 5.5 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Pyrene               | ND     |           | 23 | 4.6 | ug/Kg | ☆ | 08/13/21 10:00 | 08/14/21 06:30 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 06:30 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 06:30 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 1200   |           | 1.9 | 0.75 | mg/Kg | ☆ | 08/12/21 07:35 | 08/16/21 20:23 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 2040-P2 (3)

Lab Sample ID: 410-50879-16

Date Collected: 08/11/21 08:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.2

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.8   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 2040-P3 (3)

Lab Sample ID: 410-50879-17

Date Collected: 08/11/21 08:35

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 83.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.2 | 0.42 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.2 | 0.62 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Toluene                     | ND     |           | 5.2 | 0.62 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.5  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Benzene                     | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Naphthalene                 | ND     |           | 5.2 | 2.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Isopropylbenzene            | ND     |           | 5.2 | 0.42 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.2 | 0.42 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:20 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 18:20 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 18:20 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 14     | J         | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Benzo[a]anthracene   | 40     |           | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Benzo[a]pyrene       | 33     |           | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Benzo[b]fluoranthene | 49     |           | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Benzo[g,h,i]perylene | 28     |           | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Chrysene             | 46     |           | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Fluorene             | 6.2    | J         | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Phenanthrene         | 66     |           | 20 | 4.8 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Pyrene               | 70     |           | 20 | 4.0 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 06:52 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 65        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| Nitrobenzene-d5 (Surr)  | 56        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 06:52 | 1       |
| p-Terphenyl-d14 (Surr)  | 60        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 06:52 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 1.3 | 0.52 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:42 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.5   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 2040-P4 (3)

Lab Sample ID: 410-50879-18

Date Collected: 08/11/21 08:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 84.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.1 | 0.41 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Toluene                     | ND     |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Naphthalene                 | ND     |           | 5.1 | 2.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Isopropylbenzene            | ND     |           | 5.1 | 0.41 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.1 | 0.41 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 18:43 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 18:43 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 18:43 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 4.7    | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Benzo[a]anthracene   | 16     | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Benzo[a]pyrene       | 16     | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Benzo[b]fluoranthene | 22     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Benzo[g,h,i]perylene | 16     | J         | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Chrysene             | 27     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Fluorene             | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Phenanthrene         | 55     |           | 20 | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Pyrene               | 22     |           | 20 | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:15 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 78        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 07:15 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 07:15 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 40     |           | 1.2 | 0.50 | mg/Kg | ✱ | 08/12/21 13:44 | 08/13/21 10:00 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.0   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: 2040-P5 (3)

Lab Sample ID: 410-50879-19

Date Collected: 08/11/21 09:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 85.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 9.4 | 0.76 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| 1,2-Dichloroethane | ND     |           | 9.4 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 2040-P5 (3)

Lab Sample ID: 410-50879-19

Date Collected: 08/11/21 09:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 85.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result     | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|------------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND         | *3        | 9.4      | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| <b>Toluene</b>               | <b>5.1</b> | <b>J</b>  | 9.4      | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Xylenes, Total               | ND         |           | 19       | 2.6  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Methyl tertiary butyl ether  | ND         |           | 9.4      | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| <b>Benzene</b>               | <b>4.5</b> | <b>J</b>  | 9.4      | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Naphthalene                  | ND         | *3        | 9.4      | 3.8  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| 1,2,4-Trimethylbenzene       | ND         | *3        | 9.4      | 0.94 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Isopropylbenzene             | ND         |           | 9.4      | 0.76 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| 1,2-Dibromoethane            | ND         |           | 9.4      | 0.76 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Surrogate                    | %Recovery  | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 114        |           | 54 - 135 |      |       |   | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 74         |           | 50 - 131 |      |       |   | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Dibromofluoromethane (Surr)  | 109        |           | 50 - 141 |      |       |   | 08/12/21 11:20 | 08/16/21 21:48 | 1       |
| Toluene-d8 (Surr)            | 121        |           | 52 - 141 |      |       |   | 08/12/21 11:20 | 08/16/21 21:48 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result     | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>22</b>  |           | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>26</b>  |           | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>16</b>  | <b>J</b>  | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>36</b>  |           | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>19</b>  | <b>J</b>  | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Chrysene</b>             | <b>120</b> |           | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Fluorene</b>             | <b>16</b>  | <b>J</b>  | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Phenanthrene</b>         | <b>120</b> |           | 20       | 4.7 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| <b>Pyrene</b>               | <b>41</b>  |           | 20       | 3.9 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| Surrogate                   | %Recovery  | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 77         |           | 39 - 100 |     |       |   | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| Nitrobenzene-d5 (Surr)      | 68         |           | 32 - 97  |     |       |   | 08/13/21 10:00 | 08/14/21 07:38 | 1       |
| p-Terphenyl-d14 (Surr)      | 77         |           | 45 - 108 |     |       |   | 08/13/21 10:00 | 08/14/21 07:38 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>21</b> |           | 1.3 | 0.54 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:26 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>15.0</b> |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 31 (2)

Lab Sample ID: 410-50879-20

Date Collected: 08/11/21 09:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 52.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 9.9 | 0.79 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| 1,2-Dichloroethane     | ND     |           | 9.9 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 9.9 | 0.99 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Toluene                | ND     |           | 9.9 | 1.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 31 (2)

Lab Sample ID: 410-50879-20

Date Collected: 08/11/21 09:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 52.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 20  | 2.8  | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.9 | 0.99 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Benzene                     | ND     |           | 9.9 | 0.99 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Naphthalene                 | ND     |           | 9.9 | 4.0  | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 9.9 | 0.99 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Isopropylbenzene            | ND     |           | 9.9 | 0.79 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.9 | 0.79 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:02 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 16:02 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 16:02 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 14     | J         | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Benzo[a]anthracene   | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Benzo[a]pyrene       | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Benzo[b]fluoranthene | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Chrysene             | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Fluorene             | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Phenanthrene         | 7.6    | J         | 32 | 7.6 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Pyrene               | ND     |           | 32 | 6.3 | ug/Kg | ☆ | 08/13/21 09:45 | 08/16/21 11:19 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/13/21 09:45 | 08/16/21 11:19 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/13/21 09:45 | 08/16/21 11:19 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 31     |           | 2.0 | 0.80 | mg/Kg | ☆ | 08/12/21 13:44 | 08/13/21 10:06 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 47.9   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 08:13 | 1       |

Client Sample ID: Pipe 26 (2)

Lab Sample ID: 410-50879-21

Date Collected: 08/11/21 09:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 74.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.9 | 0.63 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.9 | 0.95 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.9 | 0.79 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Toluene                     | ND     |           | 7.9 | 0.95 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.2  | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.9 | 0.79 | ug/Kg | ☆ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 26 (2)

Lab Sample ID: 410-50879-21

Date Collected: 08/11/21 09:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 74.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Naphthalene            | ND     |           | 7.9 | 3.2  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 7.9 | 0.79 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Isopropylbenzene       | ND     |           | 7.9 | 0.63 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| 1,2-Dibromoethane      | ND     |           | 7.9 | 0.63 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 16:25 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 16:25 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 16:25 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 17     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Benzo[a]anthracene   | 12     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Benzo[a]pyrene       | 8.9    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Benzo[b]fluoranthene | 13     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Benzo[g,h,i]perylene | 12     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Chrysene             | 13     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Fluorene             | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Phenanthrene         | 26     |           | 22 | 5.3 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Pyrene               | 20     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 11:41 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  | 08/13/21 09:45 | 08/16/21 11:41 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 08/13/21 09:45 | 08/16/21 11:41 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 32     | F2        | 1.8 | 0.71 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 19:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.7   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 09:02 | 1       |

Client Sample ID: 4847-P4 (3)

Lab Sample ID: 410-50879-22

Date Collected: 08/11/21 11:00

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 76.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.2 | 0.41 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.2 | 0.62 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Toluene                     | ND     |           | 5.2 | 0.62 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Benzene                     | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Naphthalene                 | ND     |           | 5.2 | 2.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 4847-P4 (3)

Lab Sample ID: 410-50879-22

Date Collected: 08/11/21 11:00

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 76.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene | ND     |           | 5.2 | 0.52 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Isopropylbenzene       | ND     |           | 5.2 | 0.41 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| 1,2-Dibromoethane      | ND     |           | 5.2 | 0.41 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:06 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 19:06 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 19:06 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Benzo[a]anthracene   | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Benzo[a]pyrene       | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Benzo[b]fluoranthene | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Chrysene             | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Fluorene             | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Phenanthrene         | ND     |           | 22 | 5.2 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Pyrene               | 5.1    | J         | 22 | 4.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:03 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  | 08/13/21 09:45 | 08/16/21 12:03 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 | 08/13/21 09:45 | 08/16/21 12:03 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 3.6    |           | 1.4 | 0.56 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 19:58 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 23.9   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 09:02 | 1       |

Client Sample ID: 2040-P1 (3)

Lab Sample ID: 410-50879-23

Date Collected: 08/11/21 11:30

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.6 | 0.68 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.6 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.6 | 0.86 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Toluene                     | ND     |           | 8.6 | 1.0  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Xylenes, Total              | ND     |           | 17  | 2.4  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.6 | 0.86 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Benzene                     | ND     |           | 8.6 | 0.86 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Naphthalene                 | ND     |           | 8.6 | 3.4  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.6 | 0.86 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Isopropylbenzene            | ND     |           | 8.6 | 0.68 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: 2040-P1 (3)

Lab Sample ID: 410-50879-23

Date Collected: 08/11/21 11:30

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 8.6      | 0.68 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 108       |           | 54 - 135 |      |       |   | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 |      |       |   | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 |      |       |   | 08/12/21 11:20 | 08/16/21 17:34 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 |      |       |   | 08/12/21 11:20 | 08/16/21 17:34 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 11        | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Benzo[a]anthracene      | 5.8       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Benzo[a]pyrene          | 5.6       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Benzo[b]fluoranthene    | 7.9       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Benzo[g,h,i]perylene    | 8.3       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Chrysene                | 7.5       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Fluorene                | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Phenanthrene            | 26        |           | 23       | 5.6 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Pyrene                  | 7.9       | J         | 23       | 4.7 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 78        |           | 39 - 100 |     |       |   | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  |     |       |   | 08/13/21 09:45 | 08/16/21 12:26 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 |     |       |   | 08/13/21 09:45 | 08/16/21 12:26 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 250    |           | 1.7 | 0.68 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.5   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 09:02 | 1       |

Client Sample ID: Pipe 28 (2)

Lab Sample ID: 410-50879-24

Date Collected: 08/11/21 11:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 73.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.3 | 0.74 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.3 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 9.3 | 0.93 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Toluene                     | 2.8    | J         | 9.3 | 1.1  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Xylenes, Total              | ND     |           | 19  | 2.6  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.3 | 0.93 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Benzene                     | 1.4    | J         | 9.3 | 0.93 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Naphthalene                 | ND     |           | 9.3 | 3.7  | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 9.3 | 0.93 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Isopropylbenzene            | ND     |           | 9.3 | 0.74 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.3 | 0.74 | ug/Kg | ✱ | 08/12/21 11:20 | 08/16/21 19:30 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Pipe 28 (2)

Lab Sample ID: 410-50879-24

Date Collected: 08/11/21 11:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 73.8

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/12/21 11:20 | 08/16/21 19:30 | 1       |
| Toluene-d8 (Surr)            | 104       |           | 52 - 141 | 08/12/21 11:20 | 08/16/21 19:30 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Benzo[a]anthracene   | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Benzo[a]pyrene       | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Benzo[b]fluoranthene | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Chrysene             | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Fluorene             | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Phenanthrene         | ND     |           | 22 | 5.4 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Pyrene               | ND     |           | 22 | 4.5 | ug/Kg | ✱ | 08/13/21 09:45 | 08/16/21 12:48 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/13/21 09:45 | 08/16/21 12:48 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/13/21 09:45 | 08/16/21 12:48 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 14     |           | 1.7 | 0.67 | mg/Kg | ✱ | 08/12/21 13:44 | 08/13/21 10:03 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.2   |           | 1.0 | 1.0 | %    |   |          | 08/12/21 09:02 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-50879-25

Date Collected: 08/11/21 00:00

Matrix: Water

Date Received: 08/11/21 17:52

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:00 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/13/21 11:00 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:00 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 11:00 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:00 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/13/21 11:00 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/13/21 11:00 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:00 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 11:00 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 11:00 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 11:00 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96        |           | 80 - 120 |          | 08/13/21 11:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |          | 08/13/21 11:00 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 80 - 120 |          | 08/13/21 11:00 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-50879-25**

Date Collected: 08/11/21 00:00

Matrix: Water

Date Received: 08/11/21 17:52

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr) | 93        |           | 80 - 120 |          | 08/13/21 11:00 | 1       |

**Client Sample ID: Dup-06**

**Lab Sample ID: 410-50879-26**

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 64.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 590  | 48  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| 1,2-Dichloroethane          | ND     |           | 590  | 71  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 590  | 59  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Toluene                     | ND     |           | 590  | 71  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Xylenes, Total              | ND     |           | 1200 | 170 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Methyl tertiary butyl ether | ND     |           | 590  | 59  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Benzene                     | ND     |           | 590  | 59  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Naphthalene                 | ND     |           | 590  | 240 | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 590  | 59  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Isopropylbenzene            | ND     |           | 590  | 48  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| 1,2-Dibromoethane           | ND     |           | 590  | 48  | ug/Kg | ✱ | 08/12/21 11:19 | 08/16/21 18:44 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Dibromofluoromethane (Surr)  | 96        |           | 50 - 141 | 08/12/21 11:19 | 08/16/21 18:44 | 50      |
| Toluene-d8 (Surr)            | 92        |           | 52 - 141 | 08/12/21 11:19 | 08/16/21 18:44 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Benzo[a]anthracene   | 24     | J         | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Benzo[a]pyrene       | 14     | J         | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Benzo[b]fluoranthene | 26     |           | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Benzo[g,h,i]perylene | 17     | J         | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Chrysene             | 39     |           | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Fluorene             | 100    |           | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Phenanthrene         | 160    |           | 26 | 6.2 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Pyrene               | 100    |           | 26 | 5.1 | ug/Kg | ✱ | 08/13/21 10:00 | 08/14/21 08:00 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 69        |           | 39 - 100 | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/13/21 10:00 | 08/14/21 08:00 | 1       |
| p-Terphenyl-d14 (Surr)  | 78        |           | 45 - 108 | 08/13/21 10:00 | 08/14/21 08:00 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 20     |           | 1.7 | 0.69 | mg/Kg | ✱ | 08/12/21 07:35 | 08/16/21 20:20 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 35.8   |           | 1.0 | 1.0 | %    | — |          | 08/12/21 09:02 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-50879-1       | 941-P3 (3)             | 112  | 83              | 102              | 100             |
| 410-50879-2       | 941-P4 (3)             | 86   | 81              | 83               | 81              |
| 410-50879-3       | 941-P5 (3)             | 108  | 88              | 104              | 108             |
| 410-50879-4       | 941-P1 (3)             | 112  | 93              | 103              | 100             |
| 410-50879-5       | Pipe-32 (2)            | 114  | 79              | 102              | 97              |
| 410-50879-6       | Pipe 33 (2)            | 111  | 94              | 102              | 99              |
| 410-50879-7       | 2045-P3 (3)            | 112  | 82              | 103              | 93              |
| 410-50879-8       | 2045-P1 (3)            | 113  | 86              | 103              | 93              |
| 410-50879-9       | Pipe 34 (2)            | 92   | 82              | 88               | 83              |
| 410-50879-10      | Pipe 35 (2)            | 113  | 89              | 106              | 95              |
| 410-50879-11      | Pipe 36 (2)            | 115  | 80              | 105              | 97              |
| 410-50879-12      | Pipe 37 (2)            | 117  | 85              | 104              | 93              |
| 410-50879-13      | Pipe 38 (2)            | 58   | 73              | 47 S1-           | 42 S1-          |
| 410-50879-14      | Pipe 39 (2)            | 118  | 81              | 104              | 92              |
| 410-50879-15      | Pipe 40 (2)            | 100  | 87              | 95               | 93              |
| 410-50879-16      | 2040-P2 (3)            | 107  | 83              | 104              | 108             |
| 410-50879-17      | 2040-P3 (3)            | 104  | 91              | 103              | 98              |
| 410-50879-18      | 2040-P4 (3)            | 113  | 93              | 104              | 98              |
| 410-50879-19      | 2040-P5 (3)            | 114  | 74              | 109              | 121             |
| 410-50879-20      | Pipe 31 (2)            | 104  | 90              | 101              | 98              |
| 410-50879-21      | Pipe 26 (2)            | 113  | 94              | 104              | 99              |
| 410-50879-22      | 4847-P4 (3)            | 113  | 95              | 104              | 97              |
| 410-50879-23      | 2040-P1 (3)            | 108  | 87              | 102              | 102             |
| 410-50879-24      | Pipe 28 (2)            | 109  | 87              | 106              | 104             |
| 410-50879-26      | Dup-06                 | 101  | 91              | 96               | 92              |
| LCS 410-160576/5  | Lab Control Sample     | 103  | 94              | 95               | 99              |
| LCS 410-160689/4  | Lab Control Sample     | 101  | 87              | 100              | 92              |
| LCS 410-160723/5  | Lab Control Sample     | 103  | 98              | 100              | 101             |
| LCS 410-161178/4  | Lab Control Sample     | 100  | 87              | 98               | 92              |
| LCSD 410-160576/6 | Lab Control Sample Dup | 103  | 93              | 97               | 98              |
| LCSD 410-160689/5 | Lab Control Sample Dup | 103  | 88              | 101              | 92              |
| LCSD 410-160723/6 | Lab Control Sample Dup | 100  | 96              | 99               | 101             |
| LCSD 410-161178/5 | Lab Control Sample Dup | 102  | 86              | 99               | 93              |
| MB 410-160576/10  | Method Blank           | 108  | 86              | 102              | 93              |
| MB 410-160689/9   | Method Blank           | 101  | 83              | 98               | 89              |
| MB 410-160723/8   | Method Blank           | 104  | 95              | 100              | 99              |
| MB 410-161178/7   | Method Blank           | 101  | 84              | 98               | 90              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-50879-1

Project/Site: PBF Logistics

### Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-50879-25                       | Trip Blank             | 96   | 104             | 99               | 93              |
| LCS 410-160096/4                   | Lab Control Sample     | 97   | 105             | 101              | 94              |
| LCSD 410-160096/5                  | Lab Control Sample Dup | 97   | 103             | 100              | 93              |
| MB 410-160096/6                    | Method Blank           | 97   | 104             | 100              | 93              |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                 | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|-------------------------------|--------------------|--|----------------|--------------------|
|                               |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-50879-1                   | 941-P3 (3)         | 72   | 64             | 70                 |
| 410-50879-1 MS                | 941-P3 (3)         | 70   | 61             | 72                 |
| 410-50879-1 MSD               | 941-P3 (3)         | 45   | 41             | 32 S1-             |
| 410-50879-2                   | 941-P4 (3)         | 73   | 63             | 74                 |
| 410-50879-3                   | 941-P5 (3)         | 73   | 63             | 76                 |
| 410-50879-4                   | 941-P1 (3)         | 80   | 71             | 85                 |
| 410-50879-5                   | Pipe-32 (2)        | 71   | 64             | 70                 |
| 410-50879-6                   | Pipe 33 (2)        | 77   | 66             | 80                 |
| 410-50879-7                   | 2045-P3 (3)        | 73   | 63             | 75                 |
| 410-50879-8                   | 2045-P1 (3)        | 72   | 64             | 67                 |
| 410-50879-9                   | Pipe 34 (2)        | 67   | 60             | 74                 |
| 410-50879-10                  | Pipe 35 (2)        | 72   | 63             | 71                 |
| 410-50879-11                  | Pipe 36 (2)        | 76   | 64             | 77                 |
| 410-50879-12                  | Pipe 37 (2)        | 78   | 67             | 87                 |
| 410-50879-13                  | Pipe 38 (2)        | 71   | 61             | 78                 |
| 410-50879-14                  | Pipe 39 (2)        | 78   | 65             | 85                 |
| 410-50879-15                  | Pipe 40 (2)        | 62   | 60             | 76                 |
| 410-50879-16                  | 2040-P2 (3)        | 76   | 65             | 87                 |
| 410-50879-17                  | 2040-P3 (3)        | 65   | 56             | 60                 |
| 410-50879-18                  | 2040-P4 (3)        | 78   | 68             | 83                 |
| 410-50879-19                  | 2040-P5 (3)        | 77   | 68             | 77                 |
| 410-50879-20                  | Pipe 31 (2)        | 76   | 64             | 85                 |
| 410-50879-21                  | Pipe 26 (2)        | 79   | 67             | 79                 |
| 410-50879-22                  | 4847-P4 (3)        | 81   | 67             | 84                 |
| 410-50879-23                  | 2040-P1 (3)        | 78   | 64             | 85                 |
| 410-50879-24                  | Pipe 28 (2)        | 76   | 65             | 80                 |
| 410-50879-26                  | Dup-06             | 69   | 65             | 78                 |
| LCS 410-160042/2-A            | Lab Control Sample | 76   | 65             | 77                 |
| LCS 410-160044/2-A            | Lab Control Sample | 87   | 75             | 93                 |
| MB 410-160042/1-A             | Method Blank       | 74   | 63             | 80                 |
| MB 410-160044/1-A             | Method Blank       | 88   | 74             | 98                 |
| <b>Surrogate Legend</b>       |                    |  |                |                    |
| FBP = 2-Fluorobiphenyl (Surr) |                    |  |                |                    |

## Surrogate Summary

Client: Stantec Consulting Corp.

Project/Site: PBF Logistics

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Job ID: 410-50879-1

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-160576/10

Matrix: Solid

Analysis Batch: 160576

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/15/21 16:04 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/15/21 16:04 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108          |              | 54 - 135 |          | 08/15/21 16:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86           |              | 50 - 131 |          | 08/15/21 16:04 | 1       |
| Dibromofluoromethane (Surr)  | 102          |              | 50 - 141 |          | 08/15/21 16:04 | 1       |
| Toluene-d8 (Surr)            | 93           |              | 52 - 141 |          | 08/15/21 16:04 | 1       |

Lab Sample ID: LCS 410-160576/5

Matrix: Solid

Analysis Batch: 160576

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.8       |               | ug/Kg |   | 94   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 16.0       |               | ug/Kg |   | 80   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.0       |               | ug/Kg |   | 90   | 73 - 120     |
| Toluene                     | 20.0        | 17.5       |               | ug/Kg |   | 88   | 80 - 120     |
| Xylenes, Total              | 60.0        | 51.9       |               | ug/Kg |   | 87   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 15.1       |               | ug/Kg |   | 75   | 72 - 120     |
| Benzene                     | 20.0        | 19.3       |               | ug/Kg |   | 97   | 80 - 120     |
| Naphthalene                 | 20.0        | 13.5       |               | ug/Kg |   | 68   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.7       |               | ug/Kg |   | 88   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 16.8       |               | ug/Kg |   | 84   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 16.7       |               | ug/Kg |   | 84   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 95            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-160576/6

Matrix: Solid

Analysis Batch: 160576

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 19.4        |                | ug/Kg |   | 97   | 78 - 120     | 3   | 30        |
| 1,2-Dichloroethane | 20.0        | 16.3        |                | ug/Kg |   | 81   | 71 - 128     | 2   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-160576/6

Matrix: Solid

Analysis Batch: 160576

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 18.5        |                | ug/Kg |   | 93   | 73 - 120     | 3   | 30        |
| Toluene                     | 20.0        | 18.3        |                | ug/Kg |   | 91   | 80 - 120     | 4   | 30        |
| Xylenes, Total              | 60.0        | 53.5        |                | ug/Kg |   | 89   | 75 - 120     | 3   | 30        |
| Methyl tertiary butyl ether | 20.0        | 15.8        |                | ug/Kg |   | 79   | 72 - 120     | 5   | 30        |
| Benzene                     | 20.0        | 20.5        |                | ug/Kg |   | 102  | 80 - 120     | 6   | 30        |
| Naphthalene                 | 20.0        | 14.1        |                | ug/Kg |   | 70   | 48 - 130     | 4   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 73 - 120     | 5   | 30        |
| Isopropylbenzene            | 20.0        | 17.2        |                | ug/Kg |   | 86   | 77 - 120     | 3   | 30        |
| 1,2-Dibromoethane           | 20.0        | 17.3        |                | ug/Kg |   | 86   | 76 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 93             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

Lab Sample ID: MB 410-160689/9

Matrix: Solid

Analysis Batch: 160689

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/16/21 11:45 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/16/21 11:45 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/16/21 11:45 | 50      |
| 4-Bromofluorobenzene (Surr)  | 83           |              | 50 - 131 |          | 08/16/21 11:45 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/16/21 11:45 | 50      |
| Toluene-d8 (Surr)            | 89           |              | 52 - 141 |          | 08/16/21 11:45 | 50      |

Lab Sample ID: LCS 410-160689/4

Matrix: Solid

Analysis Batch: 160689

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 1000        | 936        |               | ug/Kg |   | 94   | 78 - 120     |
| 1,2-Dichloroethane     | 1000        | 976        |               | ug/Kg |   | 98   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 860        |               | ug/Kg |   | 86   | 73 - 120     |
| Toluene                | 1000        | 960        |               | ug/Kg |   | 96   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-160689/4

Matrix: Solid

Analysis Batch: 160689

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 3000        | 2920       |               | ug/Kg |   | 97   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 997        |               | ug/Kg |   | 100  | 72 - 120     |
| Benzene                     | 1000        | 1000       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 1000        | 901        |               | ug/Kg |   | 90   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 856        |               | ug/Kg |   | 86   | 73 - 120     |
| Isopropylbenzene            | 1000        | 966        |               | ug/Kg |   | 97   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 982        |               | ug/Kg |   | 98   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 92            |               | 52 - 141 |

Lab Sample ID: LCSD 410-160689/5

Matrix: Solid

Analysis Batch: 160689

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 948         |                | ug/Kg |   | 95   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 975         |                | ug/Kg |   | 97   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 866         |                | ug/Kg |   | 87   | 73 - 120     | 1   | 30        |
| Toluene                     | 1000        | 963         |                | ug/Kg |   | 96   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 3000        | 2930        |                | ug/Kg |   | 98   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 995         |                | ug/Kg |   | 99   | 72 - 120     | 0   | 30        |
| Benzene                     | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 2   | 30        |
| Naphthalene                 | 1000        | 902         |                | ug/Kg |   | 90   | 48 - 130     | 0   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 864         |                | ug/Kg |   | 86   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 1000        | 972         |                | ug/Kg |   | 97   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 1000        | 981         |                | ug/Kg |   | 98   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 88             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 92             |                | 52 - 141 |

Lab Sample ID: MB 410-160723/8

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-160723/8

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Naphthalene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Isopropylbenzene       | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,2-Dibromoethane      | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/16/21 14:05 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 08/16/21 14:05 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95           |              | 50 - 131 |          | 08/16/21 14:05 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/16/21 14:05 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 52 - 141 |          | 08/16/21 14:05 | 1       |

Lab Sample ID: LCS 410-160723/5

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 17.5       |               | ug/Kg |   | 87   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 18.6       |               | ug/Kg |   | 93   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.3       |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                     | 20.0        | 17.6       |               | ug/Kg |   | 88   | 80 - 120     |
| Xylenes, Total              | 60.0        | 52.7       |               | ug/Kg |   | 88   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.5       |               | ug/Kg |   | 102  | 72 - 120     |
| Benzene                     | 20.0        | 18.4       |               | ug/Kg |   | 92   | 80 - 120     |
| Naphthalene                 | 20.0        | 18.2       |               | ug/Kg |   | 91   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.6       |               | ug/Kg |   | 88   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 17.3       |               | ug/Kg |   | 86   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.1       |               | ug/Kg |   | 96   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: LCSD 410-160723/6

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 17.7        |                | ug/Kg |   | 89   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 18.2        |                | ug/Kg |   | 91   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.7        |                | ug/Kg |   | 88   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 17.7        |                | ug/Kg |   | 89   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 53.3        |                | ug/Kg |   | 89   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.6        |                | ug/Kg |   | 98   | 72 - 120     | 4   | 30        |
| Benzene                     | 20.0        | 18.3        |                | ug/Kg |   | 92   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 17.0        |                | ug/Kg |   | 85   | 48 - 130     | 6   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-160723/6

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene | 20.0        | 17.9        |                | ug/Kg |   | 90   | 73 - 120     | 2   | 30        |
| Isopropylbenzene       | 20.0        | 17.4        |                | ug/Kg |   | 87   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 76 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 96             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 101            |                | 52 - 141 |

Lab Sample ID: MB 410-161178/7

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/17/21 10:51 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/17/21 10:51 | 50      |
| 4-Bromofluorobenzene (Surr)  | 84           |              | 50 - 131 |          | 08/17/21 10:51 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/17/21 10:51 | 50      |
| Toluene-d8 (Surr)            | 90           |              | 52 - 141 |          | 08/17/21 10:51 | 50      |

Lab Sample ID: LCS 410-161178/4

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 949        |               | ug/Kg |   | 95   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 950        |               | ug/Kg |   | 95   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 871        |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                     | 1000        | 974        |               | ug/Kg |   | 97   | 80 - 120     |
| Xylenes, Total              | 3000        | 2960       |               | ug/Kg |   | 99   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 988        |               | ug/Kg |   | 99   | 72 - 120     |
| Benzene                     | 1000        | 1000       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 1000        | 922        |               | ug/Kg |   | 92   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 871        |               | ug/Kg |   | 87   | 73 - 120     |
| Isopropylbenzene            | 1000        | 980        |               | ug/Kg |   | 98   | 77 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-161178/4

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,2-Dibromoethane | 1000        | 993        |               | ug/Kg |   | 99   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 98            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 92            |               | 52 - 141 |

Lab Sample ID: LCSD 410-161178/5

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 960         |                | ug/Kg |   | 96   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 926         |                | ug/Kg |   | 93   | 71 - 128     | 3   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 885         |                | ug/Kg |   | 89   | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 970         |                | ug/Kg |   | 97   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 3000        | 2940        |                | ug/Kg |   | 98   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 1000        |                | ug/Kg |   | 100  | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 2   | 30        |
| Naphthalene                 | 1000        | 930         |                | ug/Kg |   | 93   | 48 - 130     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 873         |                | ug/Kg |   | 87   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 1000        | 985         |                | ug/Kg |   | 98   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 1000        | 992         |                | ug/Kg |   | 99   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 86             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 93             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-160096/6

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/13/21 10:12 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:12 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-160096/6

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Isopropylbenzene | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97              |                 | 80 - 120 |          | 08/13/21 10:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104             |                 | 80 - 120 |          | 08/13/21 10:12 | 1       |
| Dibromofluoromethane (Surr)  | 100             |                 | 80 - 120 |          | 08/13/21 10:12 | 1       |
| Toluene-d8 (Surr)            | 93              |                 | 80 - 120 |          | 08/13/21 10:12 | 1       |

Lab Sample ID: LCS 410-160096/4

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| 1,2-Dibromoethane           | 20.0           | 16.2          |                  | ug/L |   | 81   | 77 - 120        |
| Ethylbenzene                | 20.0           | 16.8          |                  | ug/L |   | 84   | 80 - 120        |
| 1,2-Dichloroethane          | 20.0           | 17.6          |                  | ug/L |   | 88   | 73 - 124        |
| 1,3,5-Trimethylbenzene      | 20.0           | 15.8          |                  | ug/L |   | 79   | 75 - 120        |
| Toluene                     | 20.0           | 16.4          |                  | ug/L |   | 82   | 80 - 120        |
| Xylenes, Total              | 60.0           | 49.9          |                  | ug/L |   | 83   | 80 - 120        |
| Methyl tertiary butyl ether | 20.0           | 18.1          |                  | ug/L |   | 90   | 69 - 122        |
| Benzene                     | 20.0           | 18.2          |                  | ug/L |   | 91   | 80 - 120        |
| Naphthalene                 | 20.0           | 16.2          |                  | ug/L |   | 81   | 53 - 124        |
| 1,2,4-Trimethylbenzene      | 20.0           | 15.6          |                  | ug/L |   | 78   | 75 - 120        |
| Isopropylbenzene            | 20.0           | 16.3          |                  | ug/L |   | 81   | 80 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97               |                  | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 105              |                  | 80 - 120 |
| Dibromofluoromethane (Surr)  | 101              |                  | 80 - 120 |
| Toluene-d8 (Surr)            | 94               |                  | 80 - 120 |

Lab Sample ID: LCSD 410-160096/5

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|-----------------------------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| 1,2-Dibromoethane           | 20.0           | 18.4           |                   | ug/L |   | 92   | 77 - 120        | 13  | 30           |
| Ethylbenzene                | 20.0           | 18.9           |                   | ug/L |   | 94   | 80 - 120        | 11  | 30           |
| 1,2-Dichloroethane          | 20.0           | 19.9           |                   | ug/L |   | 99   | 73 - 124        | 12  | 30           |
| 1,3,5-Trimethylbenzene      | 20.0           | 17.6           |                   | ug/L |   | 88   | 75 - 120        | 11  | 30           |
| Toluene                     | 20.0           | 18.5           |                   | ug/L |   | 93   | 80 - 120        | 12  | 30           |
| Xylenes, Total              | 60.0           | 55.7           |                   | ug/L |   | 93   | 80 - 120        | 11  | 30           |
| Methyl tertiary butyl ether | 20.0           | 20.4           |                   | ug/L |   | 102  | 69 - 122        | 12  | 30           |
| Benzene                     | 20.0           | 20.4           |                   | ug/L |   | 102  | 80 - 120        | 11  | 30           |
| Naphthalene                 | 20.0           | 17.9           |                   | ug/L |   | 89   | 53 - 124        | 10  | 30           |
| 1,2,4-Trimethylbenzene      | 20.0           | 17.7           |                   | ug/L |   | 88   | 75 - 120        | 13  | 30           |
| Isopropylbenzene            | 20.0           | 18.2           |                   | ug/L |   | 91   | 80 - 120        | 11  | 30           |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-160096/5

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 80 - 120 |
| Dibromofluoromethane (Surr)  | 100       |           | 80 - 120 |
| Toluene-d8 (Surr)            | 93        |           | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-160042/1-A

Matrix: Solid

Analysis Batch: 160448

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160042

| Analyte              | MB     | MB        |    |     |       |   |                |                |     |     |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|-----|-----|
|                      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil | Fac |
| Anthracene           | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Benzo[a]anthracene   | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Benzo[a]pyrene       | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Benzo[b]fluoranthene | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Benzo[g,h,i]perylene | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Chrysene             | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Fluorene             | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Phenanthrene         | ND     |           | 17 | 4.0 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |
| Pyrene               | ND     |           | 17 | 3.3 | ug/Kg |   | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |

|                         | MB        | MB        |          |                |                |     |     |  |  |  |
|-------------------------|-----------|-----------|----------|----------------|----------------|-----|-----|--|--|--|
| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil | Fac |  |  |  |
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |  |  |  |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |  |  |  |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/13/21 10:00 | 08/13/21 22:59 | 1   |     |  |  |  |

Lab Sample ID: LCS 410-160042/2-A

Matrix: Solid

Analysis Batch: 160448

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160042

| Analyte              | Spike | LCS    | LCS       |       |   |      |          |  |  |  |
|----------------------|-------|--------|-----------|-------|---|------|----------|--|--|--|
|                      | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |  |  |
| Anthracene           | 1670  | 1360   |           | ug/Kg |   | 82   | 75 - 120 |  |  |  |
| Benzo[a]anthracene   | 1670  | 1330   |           | ug/Kg |   | 80   | 73 - 120 |  |  |  |
| Benzo[a]pyrene       | 1670  | 1370   |           | ug/Kg |   | 82   | 80 - 123 |  |  |  |
| Benzo[b]fluoranthene | 1670  | 1210   |           | ug/Kg |   | 73   | 63 - 120 |  |  |  |
| Benzo[g,h,i]perylene | 1670  | 1370   |           | ug/Kg |   | 82   | 77 - 120 |  |  |  |
| Chrysene             | 1670  | 1300   |           | ug/Kg |   | 78   | 66 - 120 |  |  |  |
| Fluorene             | 1670  | 1370   |           | ug/Kg |   | 82   | 68 - 120 |  |  |  |
| Phenanthrene         | 1670  | 1330   |           | ug/Kg |   | 80   | 74 - 120 |  |  |  |
| Pyrene               | 1670  | 1300   |           | ug/Kg |   | 78   | 70 - 120 |  |  |  |

|                         | LCS       | LCS       |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 77        |           | 45 - 108 |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-50879-1 MS

Matrix: Solid

Analysis Batch: 160448

Client Sample ID: 941-P3 (3)

Prep Type: Total/NA

Prep Batch: 160042

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Anthracene           | ND            | F2 FL            | 2210        | 1630      | FL           | ug/Kg | ✖ | 74   | 75 - 120     |
| Benzo[a]anthracene   | 4.7           | J F2 FL          | 2210        | 1570      | FL           | ug/Kg | ✖ | 71   | 73 - 120     |
| Benzo[a]pyrene       | ND            | F2 FL            | 2210        | 1450      | FL           | ug/Kg | ✖ | 65   | 80 - 123     |
| Benzo[b]fluoranthene | 6.4           | J F2 FL          | 2210        | 1360      | FL           | ug/Kg | ✖ | 61   | 63 - 120     |
| Benzo[g,h,i]perylene | ND            | F2 FL            | 2210        | 1390      | FL           | ug/Kg | ✖ | 63   | 77 - 120     |
| Chrysene             | 8.5           | J F2 FL          | 2210        | 1540      |              | ug/Kg | ✖ | 69   | 66 - 120     |
| Fluorene             | ND            | F2 FL            | 2210        | 1660      |              | ug/Kg | ✖ | 75   | 68 - 120     |
| Phenanthrene         | 27            | F2 FL            | 2210        | 1640      | FL           | ug/Kg | ✖ | 73   | 74 - 120     |
| Pyrene               | 12            | J F2 FL          | 2210        | 1540      | FL           | ug/Kg | ✖ | 69   | 70 - 120     |

| Surrogate               | MS %Recovery | MS Qualifier | Limits   |
|-------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr) | 70           |              | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 61           |              | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 72           |              | 45 - 108 |

Lab Sample ID: 410-50879-1 MSD

Matrix: Solid

Analysis Batch: 160448

Client Sample ID: 941-P3 (3)

Prep Type: Total/NA

Prep Batch: 160042

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Anthracene           | ND            | F2 FL            | 2210        | 630        | F2 FL         | ug/Kg | ✖ | 29   | 75 - 120     | 88  | 30        |
| Benzo[a]anthracene   | 4.7           | J F2 FL          | 2210        | 677        | F2 FL         | ug/Kg | ✖ | 30   | 73 - 120     | 79  | 30        |
| Benzo[a]pyrene       | ND            | F2 FL            | 2210        | 640        | F2 FL         | ug/Kg | ✖ | 29   | 80 - 123     | 77  | 30        |
| Benzo[b]fluoranthene | 6.4           | J F2 FL          | 2210        | 578        | F2 FL         | ug/Kg | ✖ | 26   | 63 - 120     | 81  | 30        |
| Benzo[g,h,i]perylene | ND            | F2 FL            | 2210        | 597        | F2 FL         | ug/Kg | ✖ | 27   | 77 - 120     | 80  | 30        |
| Chrysene             | 8.5           | J F2 FL          | 2210        | 646        | F2 FL         | ug/Kg | ✖ | 29   | 66 - 120     | 82  | 30        |
| Fluorene             | ND            | F2 FL            | 2210        | 840        | F2 FL         | ug/Kg | ✖ | 38   | 68 - 120     | 66  | 30        |
| Phenanthrene         | 27            | F2 FL            | 2210        | 646        | F2 FL         | ug/Kg | ✖ | 28   | 74 - 120     | 87  | 30        |
| Pyrene               | 12            | J F2 FL          | 2210        | 579        | F2 FL         | ug/Kg | ✖ | 26   | 70 - 120     | 91  | 30        |

| Surrogate               | MSD %Recovery | MSD Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 45            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 41            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 32            | S1-           | 45 - 108 |

Lab Sample ID: MB 410-160044/1-A

Matrix: Solid

Analysis Batch: 160678

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160044

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-160044/1-A

Matrix: Solid

Analysis Batch: 160678

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160044

| Analyte                 | MB<br>Result | MB<br>Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|-----------------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND           |                 | 17       | 3.3 | ug/Kg |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Surrogate               | %Recovery    | MB<br>Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 88           |                 | 39 - 100 |     |       |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| Nitrobenzene-d5 (Surr)  | 74           |                 | 32 - 97  |     |       |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |
| p-Terphenyl-d14 (Surr)  | 98           |                 | 45 - 108 |     |       |   | 08/13/21 09:45 | 08/16/21 09:49 | 1       |

Lab Sample ID: LCS 410-160044/2-A

Matrix: Solid

Analysis Batch: 160678

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160044

| Analyte                 | Spike<br>Added | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------------------|----------------|------------------|------------------|-------|---|------|-----------------|
| Anthracene              | 1670           | 1600             |                  | ug/Kg |   | 96   | 75 - 120        |
| Benzo[a]anthracene      | 1670           | 1550             |                  | ug/Kg |   | 93   | 73 - 120        |
| Benzo[a]pyrene          | 1670           | 1660             |                  | ug/Kg |   | 99   | 80 - 123        |
| Benzo[b]fluoranthene    | 1670           | 1470             |                  | ug/Kg |   | 88   | 63 - 120        |
| Benzo[g,h,i]perylene    | 1670           | 1600             |                  | ug/Kg |   | 96   | 77 - 120        |
| Chrysene                | 1670           | 1540             |                  | ug/Kg |   | 92   | 66 - 120        |
| Fluorene                | 1670           | 1580             |                  | ug/Kg |   | 95   | 68 - 120        |
| Phenanthrene            | 1670           | 1540             |                  | ug/Kg |   | 92   | 74 - 120        |
| Pyrene                  | 1670           | 1530             |                  | ug/Kg |   | 92   | 70 - 120        |
| Surrogate               | %Recovery      | LCS<br>Qualifier | Limits           |       |   |      |                 |
| 2-Fluorobiphenyl (Surr) | 87             |                  | 39 - 100         |       |   |      |                 |
| Nitrobenzene-d5 (Surr)  | 75             |                  | 32 - 97          |       |   |      |                 |
| p-Terphenyl-d14 (Surr)  | 93             |                  | 45 - 108         |       |   |      |                 |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-159527/1-A

Matrix: Solid

Analysis Batch: 161056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159527

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND           |                 | 1.5 | 0.60 | mg/Kg |   | 08/12/21 07:35 | 08/16/21 19:27 | 1       |

Lab Sample ID: LCS 410-159527/2-A

Matrix: Solid

Analysis Batch: 161056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159527

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Lead    | 5.00           | 5.12          |                  | mg/Kg |   | 102  | 80 - 120        |

Lab Sample ID: 410-50879-21 MS

Matrix: Solid

Analysis Batch: 161056

Client Sample ID: Pipe 26 (2)

Prep Type: Total/NA

Prep Batch: 159527

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Lead    | 32               | F2                  | 4.74           | 30.8         | 4               | mg/Kg | ✱ | -16  | 75 - 125        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: 410-50879-21 MSD

Matrix: Solid

Analysis Batch: 161056

Client Sample ID: Pipe 26 (2)

Prep Type: Total/NA

Prep Batch: 159527

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Lead    | 32            | F2               | 5.80        | 51.1       | 4 F2          | mg/Kg | ✱ | 337  | 75 - 125     | 50  | 20        |

Lab Sample ID: 410-50879-21 DU

Matrix: Solid

Analysis Batch: 161056

Client Sample ID: Pipe 26 (2)

Prep Type: Total/NA

Prep Batch: 159527

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Lead    | 32            | F2               | 65.2      | F3           | mg/Kg | ✱ | 70  | 20        |

Lab Sample ID: MB 410-159761/1-A

Matrix: Solid

Analysis Batch: 160209

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159761

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 08/12/21 13:44 | 08/13/21 08:31 | 1       |

Lab Sample ID: LCS 410-159761/2-A

Matrix: Solid

Analysis Batch: 160209

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159761

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.20       |               | mg/Kg |   | 104  | 80 - 120     |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## GC/MS VOA

### Prep Batch: 159682

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-50879-2       | 941-P4 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-50879-9       | Pipe 34 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-13 - RA | Pipe 38 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-13      | Pipe 38 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-15      | Pipe 40 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-26      | Dup-06           | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 159683

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-50879-1       | 941-P3 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-50879-3       | 941-P5 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-50879-4       | 941-P1 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-50879-5       | Pipe-32 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-6       | Pipe 33 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-7       | 2045-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-8       | 2045-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-10      | Pipe 35 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-11      | Pipe 36 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-12      | Pipe 37 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-14      | Pipe 39 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-16      | 2040-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-17      | 2040-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-18      | 2040-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-19 - RA | 2040-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-19      | 2040-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-20      | Pipe 31 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-21      | Pipe 26 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-22      | 4847-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-23      | 2040-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-50879-24      | Pipe 28 (2)      | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 160096

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-50879-25      | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-160096/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-160096/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-160096/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

### Analysis Batch: 160576

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50879-1       | 941-P3 (3)             | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-5       | Pipe-32 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-7       | 2045-P3 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-8       | 2045-P1 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-10      | Pipe 35 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-11      | Pipe 36 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-12      | Pipe 37 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-14      | Pipe 39 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| MB 410-160576/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160576/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160576/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### GC/MS VOA

#### Analysis Batch: 160689

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50879-2       | 941-P4 (3)             | Total/NA  | Solid  | 8260C  | 159682     |
| 410-50879-9       | Pipe 34 (2)            | Total/NA  | Solid  | 8260C  | 159682     |
| 410-50879-13      | Pipe 38 (2)            | Total/NA  | Solid  | 8260C  | 159682     |
| 410-50879-26      | Dup-06                 | Total/NA  | Solid  | 8260C  | 159682     |
| MB 410-160689/9   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160689/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160689/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 160723

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50879-3       | 941-P5 (3)             | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-4       | 941-P1 (3)             | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-6       | Pipe 33 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-16      | 2040-P2 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-17      | 2040-P3 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-18      | 2040-P4 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-19      | 2040-P5 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-20      | Pipe 31 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-21      | Pipe 26 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-22      | 4847-P4 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-23      | 2040-P1 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| 410-50879-24      | Pipe 28 (2)            | Total/NA  | Solid  | 8260C  | 159683     |
| MB 410-160723/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160723/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160723/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 161178

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50879-13 - RA | Pipe 38 (2)            | Total/NA  | Solid  | 8260C  | 159682     |
| 410-50879-15      | Pipe 40 (2)            | Total/NA  | Solid  | 8260C  | 159682     |
| MB 410-161178/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-161178/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-161178/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 161192

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-50879-19 - RA | 2040-P5 (3)            | Total/NA  | Solid  | 8260C  | 159683     |
| MB 410-161192/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-161192/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-161192/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 160042

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50879-1   | 941-P3 (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50879-2   | 941-P4 (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50879-3   | 941-P5 (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50879-4   | 941-P1 (3)       | Total/NA  | Solid  | 3546   |            |
| 410-50879-5   | Pipe-32 (2)      | Total/NA  | Solid  | 3546   |            |
| 410-50879-6   | Pipe 33 (2)      | Total/NA  | Solid  | 3546   |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### GC/MS Semi VOA (Continued)

#### Prep Batch: 160042 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-7        | 2045-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-8        | 2045-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-9        | Pipe 34 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-10       | Pipe 35 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-11       | Pipe 36 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-12       | Pipe 37 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-13       | Pipe 38 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-14       | Pipe 39 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-15       | Pipe 40 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-16       | 2040-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-17       | 2040-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-18       | 2040-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-19       | 2040-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-26       | Dup-06             | Total/NA  | Solid  | 3546   |            |
| MB 410-160042/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-160042/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-50879-1 MS     | 941-P3 (3)         | Total/NA  | Solid  | 3546   |            |
| 410-50879-1 MSD    | 941-P3 (3)         | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 160044

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-20       | Pipe 31 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-21       | Pipe 26 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-22       | 4847-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-23       | 2040-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-50879-24       | Pipe 28 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-160044/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-160044/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 160448

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50879-1   | 941-P3 (3)       | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-2   | 941-P4 (3)       | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-3   | 941-P5 (3)       | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-4   | 941-P1 (3)       | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-5   | Pipe-32 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-6   | Pipe 33 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-7   | 2045-P3 (3)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-8   | 2045-P1 (3)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-9   | Pipe 34 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-10  | Pipe 35 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-11  | Pipe 36 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-12  | Pipe 37 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-13  | Pipe 38 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-14  | Pipe 39 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-15  | Pipe 40 (2)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-16  | 2040-P2 (3)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-17  | 2040-P3 (3)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-18  | 2040-P4 (3)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-19  | 2040-P5 (3)      | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-26  | Dup-06           | Total/NA  | Solid  | 8270D  | 160042     |

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# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 160448 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-160042/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 160042     |
| LCS 410-160042/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-1 MS     | 941-P3 (3)         | Total/NA  | Solid  | 8270D  | 160042     |
| 410-50879-1 MSD    | 941-P3 (3)         | Total/NA  | Solid  | 8270D  | 160042     |

### Analysis Batch: 160678

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-20       | Pipe 31 (2)        | Total/NA  | Solid  | 8270D  | 160044     |
| 410-50879-21       | Pipe 26 (2)        | Total/NA  | Solid  | 8270D  | 160044     |
| 410-50879-22       | 4847-P4 (3)        | Total/NA  | Solid  | 8270D  | 160044     |
| 410-50879-23       | 2040-P1 (3)        | Total/NA  | Solid  | 8270D  | 160044     |
| 410-50879-24       | Pipe 28 (2)        | Total/NA  | Solid  | 8270D  | 160044     |
| MB 410-160044/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 160044     |
| LCS 410-160044/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 160044     |

## Metals

### Prep Batch: 159527

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-2        | 941-P4 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-50879-3        | 941-P5 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-50879-4        | 941-P1 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-50879-5        | Pipe-32 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-7        | 2045-P3 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-8        | 2045-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-9        | Pipe 34 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-10       | Pipe 35 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-11       | Pipe 36 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-12       | Pipe 37 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-13       | Pipe 38 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-14       | Pipe 39 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-15       | Pipe 40 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-16       | 2040-P2 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-17       | 2040-P3 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-19       | 2040-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-21       | Pipe 26 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-22       | 4847-P4 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-23       | 2040-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-26       | Dup-06             | Total/NA  | Solid  | 3050B  |            |
| MB 410-159527/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-159527/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-50879-21 MS    | Pipe 26 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-21 MSD   | Pipe 26 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-50879-21 DU    | Pipe 26 (2)        | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 159761

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-50879-1   | 941-P3 (3)       | Total/NA  | Solid  | 3050B  |            |
| 410-50879-6   | Pipe 33 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-50879-18  | 2040-P4 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-50879-20  | Pipe 31 (2)      | Total/NA  | Solid  | 3050B  |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Metals (Continued)

#### Prep Batch: 159761 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-24       | Pipe 28 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-159761/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-159761/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 160209

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-1        | 941-P3 (3)         | Total/NA  | Solid  | 6010C  | 159761     |
| 410-50879-6        | Pipe 33 (2)        | Total/NA  | Solid  | 6010C  | 159761     |
| 410-50879-18       | 2040-P4 (3)        | Total/NA  | Solid  | 6010C  | 159761     |
| 410-50879-20       | Pipe 31 (2)        | Total/NA  | Solid  | 6010C  | 159761     |
| 410-50879-24       | Pipe 28 (2)        | Total/NA  | Solid  | 6010C  | 159761     |
| MB 410-159761/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 159761     |
| LCS 410-159761/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 159761     |

#### Analysis Batch: 161056

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-50879-2        | 941-P4 (3)         | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-3        | 941-P5 (3)         | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-4        | 941-P1 (3)         | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-5        | Pipe-32 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-7        | 2045-P3 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-8        | 2045-P1 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-9        | Pipe 34 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-10       | Pipe 35 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-11       | Pipe 36 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-12       | Pipe 37 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-13       | Pipe 38 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-14       | Pipe 39 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-15       | Pipe 40 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-16       | 2040-P2 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-17       | 2040-P3 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-19       | 2040-P5 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-21       | Pipe 26 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-22       | 4847-P4 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-23       | 2040-P1 (3)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-26       | Dup-06             | Total/NA  | Solid  | 6010C  | 159527     |
| MB 410-159527/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 159527     |
| LCS 410-159527/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-21 MS    | Pipe 26 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-21 MSD   | Pipe 26 (2)        | Total/NA  | Solid  | 6010C  | 159527     |
| 410-50879-21 DU    | Pipe 26 (2)        | Total/NA  | Solid  | 6010C  | 159527     |

### General Chemistry

#### Analysis Batch: 159541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50879-1   | 941-P3 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-50879-2   | 941-P4 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-50879-3   | 941-P5 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-50879-4   | 941-P1 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-50879-5   | Pipe-32 (2)      | Total/NA  | Solid  | Moisture |            |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## General Chemistry (Continued)

### Analysis Batch: 159541 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50879-6   | Pipe 33 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-7   | 2045-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-8   | 2045-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-9   | Pipe 34 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-10  | Pipe 35 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-11  | Pipe 36 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-12  | Pipe 37 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-13  | Pipe 38 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-14  | Pipe 39 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-15  | Pipe 40 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-16  | 2040-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-17  | 2040-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-18  | 2040-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-19  | 2040-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-20  | Pipe 31 (2)      | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 159588

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-50879-21  | Pipe 26 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-22  | 4847-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-23  | 2040-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-24  | Pipe 28 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-50879-26  | Dup-06           | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: 941-P3 (3)**

**Lab Sample ID: 410-50879-1**

Date Collected: 08/10/21 11:10

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: 941-P3 (3)**

**Lab Sample ID: 410-50879-1**

Date Collected: 08/10/21 11:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 74.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 22:03       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 00:07       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159761       | 08/12/21 13:44       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160209       | 08/13/21 10:09       | WJM9    | ELLE |

**Client Sample ID: 941-P4 (3)**

**Lab Sample ID: 410-50879-2**

Date Collected: 08/10/21 11:20

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: 941-P4 (3)**

**Lab Sample ID: 410-50879-2**

Date Collected: 08/10/21 11:20

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 79.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159682       | 08/12/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 160689       | 08/16/21 17:42       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 01:14       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:46       | XQY5    | ELLE |

**Client Sample ID: 941-P5 (3)**

**Lab Sample ID: 410-50879-3**

Date Collected: 08/10/21 11:30

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: 941-P5 (3)**

**Lab Sample ID: 410-50879-3**

**Date Collected: 08/10/21 11:30**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 79.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 14:53       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 01:37       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 21:09       | XQY5    | ELLE |

**Client Sample ID: 941-P1 (3)**

**Lab Sample ID: 410-50879-4**

**Date Collected: 08/10/21 11:45**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: 941-P1 (3)**

**Lab Sample ID: 410-50879-4**

**Date Collected: 08/10/21 11:45**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 83.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 15:15       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 02:00       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:04       | XQY5    | ELLE |

**Client Sample ID: Pipe-32 (2)**

**Lab Sample ID: 410-50879-5**

**Date Collected: 08/10/21 12:05**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: Pipe-32 (2)**

**Lab Sample ID: 410-50879-5**

**Date Collected: 08/10/21 12:05**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 70.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 23:56       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 02:22       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:08       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: Pipe 33 (2)**

**Lab Sample ID: 410-50879-6**

**Date Collected: 08/10/21 12:15**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: Pipe 33 (2)**

**Lab Sample ID: 410-50879-6**

**Date Collected: 08/10/21 12:15**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 66.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 15:38       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 02:44       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159761       | 08/12/21 13:44       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160209       | 08/13/21 09:57       | WJM9    | ELLE |

**Client Sample ID: 2045-P3 (3)**

**Lab Sample ID: 410-50879-7**

**Date Collected: 08/10/21 12:25**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: 2045-P3 (3)**

**Lab Sample ID: 410-50879-7**

**Date Collected: 08/10/21 12:25**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 71.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 20:10       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 03:07       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:55       | XQY5    | ELLE |

**Client Sample ID: 2045-P1 (3)**

**Lab Sample ID: 410-50879-8**

**Date Collected: 08/10/21 12:35**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: 2045-P1 (3)**

**Lab Sample ID: 410-50879-8**

**Date Collected: 08/10/21 12:35**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 72.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 21:40       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 03:29       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:01       | XQY5    | ELLE |

**Client Sample ID: Pipe 34 (2)**

**Lab Sample ID: 410-50879-9**

**Date Collected: 08/10/21 12:55**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: Pipe 34 (2)**

**Lab Sample ID: 410-50879-9**

**Date Collected: 08/10/21 12:55**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 77.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159682       | 08/12/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 100             | 160689       | 08/16/21 18:03       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 03:52       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:36       | XQY5    | ELLE |

**Client Sample ID: Pipe 35 (2)**

**Lab Sample ID: 410-50879-10**

**Date Collected: 08/10/21 13:10**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: Pipe 35 (2)**

**Lab Sample ID: 410-50879-10**

**Date Collected: 08/10/21 13:10**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 72.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 22:48       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 04:14       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:33       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: Pipe 36 (2)**

**Date Collected: 08/10/21 13:45**

**Date Received: 08/11/21 17:52**

**Lab Sample ID: 410-50879-11**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: Pipe 36 (2)**

**Date Collected: 08/10/21 13:45**

**Date Received: 08/11/21 17:52**

**Lab Sample ID: 410-50879-11**

**Matrix: Solid**

**Percent Solids: 69.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 23:11       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 04:37       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:17       | XQY5    | ELLE |

**Client Sample ID: Pipe 37 (2)**

**Date Collected: 08/10/21 13:55**

**Date Received: 08/11/21 17:52**

**Lab Sample ID: 410-50879-12**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: Pipe 37 (2)**

**Date Collected: 08/10/21 13:55**

**Date Received: 08/11/21 17:52**

**Lab Sample ID: 410-50879-12**

**Matrix: Solid**

**Percent Solids: 53.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 20:32       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 05:00       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 21:05       | XQY5    | ELLE |

**Client Sample ID: Pipe 38 (2)**

**Date Collected: 08/10/21 14:05**

**Date Received: 08/11/21 17:52**

**Lab Sample ID: 410-50879-13**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Client Sample ID: Pipe 38 (2)

Lab Sample ID: 410-50879-13

Date Collected: 08/10/21 14:05

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 53.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159682       | 08/12/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 160689       | 08/16/21 18:23       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 159682       | 08/12/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 50              | 161178       | 08/17/21 12:02       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 05:22       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:58       | XQY5    | ELLE |

## Client Sample ID: Pipe 39 (2)

Lab Sample ID: 410-50879-14

Date Collected: 08/10/21 14:20

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

## Client Sample ID: Pipe 39 (2)

Lab Sample ID: 410-50879-14

Date Collected: 08/10/21 14:20

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 59.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160576       | 08/15/21 20:55       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 05:45       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:30       | XQY5    | ELLE |

## Client Sample ID: Pipe 40 (2)

Lab Sample ID: 410-50879-15

Date Collected: 08/10/21 14:35

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

## Client Sample ID: Pipe 40 (2)

Lab Sample ID: 410-50879-15

Date Collected: 08/10/21 14:35

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 66.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159682       | 08/12/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 161178       | 08/17/21 11:41       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 06:07       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 21:02       | XQY5    | ELLE |

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# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: 2040-P2 (3)**

**Lab Sample ID: 410-50879-16**

Date Collected: 08/11/21 08:25

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: 2040-P2 (3)**

**Lab Sample ID: 410-50879-16**

Date Collected: 08/11/21 08:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 17:11       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 06:30       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:23       | XQY5    | ELLE |

**Client Sample ID: 2040-P3 (3)**

**Lab Sample ID: 410-50879-17**

Date Collected: 08/11/21 08:35

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

**Client Sample ID: 2040-P3 (3)**

**Lab Sample ID: 410-50879-17**

Date Collected: 08/11/21 08:35

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 83.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 18:20       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 06:52       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:42       | XQY5    | ELLE |

**Client Sample ID: 2040-P4 (3)**

**Lab Sample ID: 410-50879-18**

Date Collected: 08/11/21 08:45

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Client Sample ID: 2040-P4 (3)

## Lab Sample ID: 410-50879-18

Date Collected: 08/11/21 08:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 84.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 18:43       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 07:15       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159761       | 08/12/21 13:44       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160209       | 08/13/21 10:00       | WJM9    | ELLE |

## Client Sample ID: 2040-P5 (3)

## Lab Sample ID: 410-50879-19

Date Collected: 08/11/21 09:10

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

## Client Sample ID: 2040-P5 (3)

## Lab Sample ID: 410-50879-19

Date Collected: 08/11/21 09:10

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 85.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 21:48       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 161192       | 08/17/21 14:35       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 07:38       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:26       | XQY5    | ELLE |

## Client Sample ID: Pipe 31 (2)

## Lab Sample ID: 410-50879-20

Date Collected: 08/11/21 09:25

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159541       | 08/12/21 08:13       | UVJN    | ELLE |

## Client Sample ID: Pipe 31 (2)

## Lab Sample ID: 410-50879-20

Date Collected: 08/11/21 09:25

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 52.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 16:02       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160044       | 08/13/21 09:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 11:19       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159761       | 08/12/21 13:44       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160209       | 08/13/21 10:06       | WJM9    | ELLE |

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# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

**Client Sample ID: Pipe 26 (2)**

**Lab Sample ID: 410-50879-21**

**Date Collected: 08/11/21 09:45**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159588       | 08/12/21 09:02       | UVJN    | ELLE |

**Client Sample ID: Pipe 26 (2)**

**Lab Sample ID: 410-50879-21**

**Date Collected: 08/11/21 09:45**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 74.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 16:25       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160044       | 08/13/21 09:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 11:41       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 19:39       | XQY5    | ELLE |

**Client Sample ID: 4847-P4 (3)**

**Lab Sample ID: 410-50879-22**

**Date Collected: 08/11/21 11:00**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159588       | 08/12/21 09:02       | UVJN    | ELLE |

**Client Sample ID: 4847-P4 (3)**

**Lab Sample ID: 410-50879-22**

**Date Collected: 08/11/21 11:00**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

**Percent Solids: 76.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 19:06       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160044       | 08/13/21 09:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 12:03       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 19:58       | XQY5    | ELLE |

**Client Sample ID: 2040-P1 (3)**

**Lab Sample ID: 410-50879-23**

**Date Collected: 08/11/21 11:30**

**Matrix: Solid**

**Date Received: 08/11/21 17:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159588       | 08/12/21 09:02       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

## Client Sample ID: 2040-P1 (3)

Lab Sample ID: 410-50879-23

Date Collected: 08/11/21 11:30

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 71.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 17:34       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160044       | 08/13/21 09:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 12:26       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:39       | XQY5    | ELLE |

## Client Sample ID: Pipe 28 (2)

Lab Sample ID: 410-50879-24

Date Collected: 08/11/21 11:45

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159588       | 08/12/21 09:02       | UVJN    | ELLE |

## Client Sample ID: Pipe 28 (2)

Lab Sample ID: 410-50879-24

Date Collected: 08/11/21 11:45

Matrix: Solid

Date Received: 08/11/21 17:52

Percent Solids: 73.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159683       | 08/12/21 11:20       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 19:30       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160044       | 08/13/21 09:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 12:48       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159761       | 08/12/21 13:44       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160209       | 08/13/21 10:03       | WJM9    | ELLE |

## Client Sample ID: Trip Blank

Lab Sample ID: 410-50879-25

Date Collected: 08/11/21 00:00

Matrix: Water

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 160096       | 08/13/21 11:00       | UKAD    | ELLE |

## Client Sample ID: Dup-06

Lab Sample ID: 410-50879-26

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/11/21 17:52

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 159588       | 08/12/21 09:02       | UVJN    | ELLE |

Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

Client Sample ID: Dup-06  
Date Collected: 08/10/21 00:00  
Date Received: 08/11/21 17:52

Lab Sample ID: 410-50879-26  
Matrix: Solid  
Percent Solids: 64.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 159682       | 08/12/21 11:19       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 160689       | 08/16/21 18:44       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160042       | 08/13/21 10:00       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160448       | 08/14/21 08:00       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 159527       | 08/12/21 07:35       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161056       | 08/16/21 20:20       | XQY5    | ELLE |

Laboratory References:  
ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-50879-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-50879-1   | 941-P3 (3)       | Solid  | 08/10/21 11:10 | 08/11/21 17:52 |
| 410-50879-2   | 941-P4 (3)       | Solid  | 08/10/21 11:20 | 08/11/21 17:52 |
| 410-50879-3   | 941-P5 (3)       | Solid  | 08/10/21 11:30 | 08/11/21 17:52 |
| 410-50879-4   | 941-P1 (3)       | Solid  | 08/10/21 11:45 | 08/11/21 17:52 |
| 410-50879-5   | Pipe-32 (2)      | Solid  | 08/10/21 12:05 | 08/11/21 17:52 |
| 410-50879-6   | Pipe 33 (2)      | Solid  | 08/10/21 12:15 | 08/11/21 17:52 |
| 410-50879-7   | 2045-P3 (3)      | Solid  | 08/10/21 12:25 | 08/11/21 17:52 |
| 410-50879-8   | 2045-P1 (3)      | Solid  | 08/10/21 12:35 | 08/11/21 17:52 |
| 410-50879-9   | Pipe 34 (2)      | Solid  | 08/10/21 12:55 | 08/11/21 17:52 |
| 410-50879-10  | Pipe 35 (2)      | Solid  | 08/10/21 13:10 | 08/11/21 17:52 |
| 410-50879-11  | Pipe 36 (2)      | Solid  | 08/10/21 13:45 | 08/11/21 17:52 |
| 410-50879-12  | Pipe 37 (2)      | Solid  | 08/10/21 13:55 | 08/11/21 17:52 |
| 410-50879-13  | Pipe 38 (2)      | Solid  | 08/10/21 14:05 | 08/11/21 17:52 |
| 410-50879-14  | Pipe 39 (2)      | Solid  | 08/10/21 14:20 | 08/11/21 17:52 |
| 410-50879-15  | Pipe 40 (2)      | Solid  | 08/10/21 14:35 | 08/11/21 17:52 |
| 410-50879-16  | 2040-P2 (3)      | Solid  | 08/11/21 08:25 | 08/11/21 17:52 |
| 410-50879-17  | 2040-P3 (3)      | Solid  | 08/11/21 08:35 | 08/11/21 17:52 |
| 410-50879-18  | 2040-P4 (3)      | Solid  | 08/11/21 08:45 | 08/11/21 17:52 |
| 410-50879-19  | 2040-P5 (3)      | Solid  | 08/11/21 09:10 | 08/11/21 17:52 |
| 410-50879-20  | Pipe 31 (2)      | Solid  | 08/11/21 09:25 | 08/11/21 17:52 |
| 410-50879-21  | Pipe 26 (2)      | Solid  | 08/11/21 09:45 | 08/11/21 17:52 |
| 410-50879-22  | 4847-P4 (3)      | Solid  | 08/11/21 11:00 | 08/11/21 17:52 |
| 410-50879-23  | 2040-P1 (3)      | Solid  | 08/11/21 11:30 | 08/11/21 17:52 |
| 410-50879-24  | Pipe 28 (2)      | Solid  | 08/11/21 11:45 | 08/11/21 17:52 |
| 410-50879-25  | Trip Blank       | Water  | 08/11/21 00:00 | 08/11/21 17:52 |
| 410-50879-26  | Dup-06           | Solid  | 08/10/21 00:00 | 08/11/21 17:52 |





Environment Testing,  
America

|   |  |   |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
|---|--|---|--|--|--|-------------------------------------|--|---|---|--|--|--------------------|--|--|-----------------------------------|---------------------------|--|--|--|-----------------------------------|--|--|--|--|
| <b>Client Information</b>   |  | Stapler <b>IA/DH</b>  |  | Lab PM: Carter, Amek A   |  | Carrier Tracking No(s)              |  | COC No<br>410-31049-9562.3                                      |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Client Contact:<br>Mark Schaeffer   |  | Phone:  |  | E-Mail:<br>Loran Carter@eurofinset.com   |  | State of Origin<br><b>PA</b>        |  | Page<br>Page 3 of 8   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Company<br>Stantec Consulting Corp  |  | PWSID:  |  | <b>Analysis Requested</b>  |  |                                     |  |   | Job #   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Address<br>1060 Andrew Drive Suite 140  |  | Due Date Requested:   |  | <div>Field Filtered Sample (Yes or No)</div> <div>8260C - PA Combo of Loaded and Unleaded Gasoline</div> <div>6010C, 8270D, Moisture</div> <div>8260C_UST - PA Combo of Loaded and Unleaded Gasoline</div> <div>Total Number of Containers</div> |  |                                     |  |   | <b>Preservation Codes:</b><br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>Z - other (specify) |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| City<br>West Chester  |  | TAT Requested (days):<br><b>5 day</b>   |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| State, Zip<br>PA, 19380   |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Phone:  |  | PO #  |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Email:<br>mark.schaeffer@stantec.com  |  | Purchase Order Requested  |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Project Name:<br>PBF Logistics  |  | WO #  |  |  |  |                                     |  |   | <b>Other:</b>   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Site:<br><b>51st Street Terminal</b>  |  | Project #<br>41007459   |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
|   |  | SSOW#:  |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
|   |  |   |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
|   |  |   |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| <b>Sample Identification</b>  |  | <b>Sample Date</b>  |  | <b>Sample Time</b>   |  | <b>Sample Type (C=Comp, G=grab)</b> |  | <b>Matrix (W=water, S=solid, O=water/oil, BT=tissue, A=Air)</b> |   | <b>Field Filtered Sample (Yes or No)</b>   |  |                    |  |  | <b>Total Number of Containers</b> |                           |  |  |  | <b>Special Instructions/Note:</b> |  |  |  |  |
|   |  |   |  |  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Pipe 37 (2)   |  | 8/10/21   |  | 1355   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Pipe 38 (2)   |  | 8/10/21   |  | 1405   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Pipe 39 (2)   |  | 8/10/21   |  | 1420   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Pipe 40 (2)   |  | 8/10/21   |  | 1435   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| 2040 - P2 (3)   |  | 8/11/21   |  | 0825   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| 2040 - P3 (3)   |  | 8/11/21   |  | 0835   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| 2040 - P4 (3)   |  | 8/11/21   |  | 0845   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| 2040 - P5 (3)   |  | 8/11/21   |  | 0910   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Pipe 31 (2)   |  | 8/11/21   |  | 0925   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Pipe 26 (2)   |  | 8/11/21   |  | 0945   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| 4847 - P4 (3)   |  | 8/11/21   |  | 1100   |  | G                                   |  | Solid   |   | XX   |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| <b>Possible Hazard Identification</b><br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |   |  |  |  |                                     |  |   |   | <b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Deliverable Requested I, II, III, IV, Other (specify)   |  |   |  |  |  |                                     |  |   |   | Special Instructions/QC Requirements:  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Empty Kit Relinquished by   |  |   |  | Date   |  |                                     |  | Time  |   |  |  | Method of Shipment |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |
| Relinquished by   |  |   |  | Date/Time<br>8/11/21 1150  |  |                                     |  | Company<br>Stantec  |   |  |  | Received by        |  |  |                                   | Date/Time<br>8/11/21 1150 |  |  |  | Company                           |  |  |  |  |
| Relinquished by   |  |   |  | Date/Time<br>8-11-21 1742  |  |                                     |  | Company   |   |  |  | Received by        |  |  |                                   | Date/Time                 |  |  |  | Company                           |  |  |  |  |
| Relinquished by   |  |   |  | Date/Time  |  |                                     |  | Company   |   |  |  | Received by        |  |  |                                   | Date/Time<br>8/11/21 1752 |  |  |  | Company<br>                       |  |  |  |  |
| Custody Seals Intact.<br><input type="checkbox"/> Yes <input type="checkbox"/> No   |  | Custody Seal No.  |  | Cooler Temperature(s) °F and Other Remarks:  |  |                                     |  |   |   |  |  |                    |  |  |                                   |                           |  |  |  |                                   |  |  |  |  |

Environment Testing  
America

8/17/2021

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-50879-1

**Login Number: 50879**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

**List Number: 1**

**Creator: Knoedler, Christine M**

| Question  | Answer | Comment                                   |
|---|--------|---|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |   |
| The cooler's custody seal is intact.  | N/A    |   |
| The cooler or samples do not appear to have been compromised or tampered with.      | N/A    |   |
| Samples were received on ice.   | True   |   |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |   |
| Cooler Temperature is recorded.   | True   |   |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |   |
| WV: Container Temperature is recorded.  | N/A    |   |
| COC is present.   | True   |   |
| COC is filled out in ink and legible.   | True   |   |
| COC is filled out with all pertinent information.                                   | True   |   |
| There are no discrepancies between the containers received and the COC.             | False  | Received extra samples not listed on COC. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |   |
| Sample containers have legible labels.  | True   |   |
| Containers are not broken or leaking.   | True   |   |
| Sample collection date/times are provided.  | True   |   |
| Appropriate sample containers are used.   | True   |   |
| Sample bottles are completely filled.   | True   |   |
| There is sufficient vol. for all requested analyses.                                | True   |   |
| Multiphasic samples are not present.  | True   |   |
| Samples do not require splitting or compositing.                                    | N/A    |   |
| Is the Field Sampler's name present on COC?   | True   |   |
| Sample Preservation Verified.   | N/A    |   |
| Residual Chlorine Checked.  | N/A    |   |
| Sample custody seals are intact.  | N/A    |   |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-51060-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/19/2021 2:48:15 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
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| 15 |

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter  
Project Manager  
8/19/2021 2:48:15 PM



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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1+       | Surrogate recovery exceeds control limits, high biased.  |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| FL        | MS and/or MSD recovery below control limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                        |
|-----------|--|
| FL        | MS and/or MSD recovery below control limits. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Job ID: 410-51060-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-51060-1

##### Receipt

The samples were received on 8/12/2021 5:42 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C

##### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Pipe 27 (2) (410-51060-1) and Pipe 30 (2) (410-51060-4). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: Pipe 44 (2) (410-51060-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Client Sample ID: Pipe 27 (2)

Lab Sample ID: 410-51060-1

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Phenanthrene | 8.4    | J         | 23  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 5.4    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 40     |           | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 29 (2)

Lab Sample ID: 410-51060-2

| Analyte                | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 1000   |           | 590  | 47   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2-Dichloroethane     | 95     | J         | 590  | 71   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 18000  |           | 590  | 59   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 4100   |           | 590  | 71   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 10000  |           | 1200 | 170  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 660    |           | 590  | 59   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 4800   |           | 590  | 240  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 10000  |           | 590  | 59   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 240    | J         | 590  | 47   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 660    |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 21     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 11     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 20     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 17     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 87     |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 2500   |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 3200   |           | 28   | 6.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1300   |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 22     |           | 2.1  | 0.85 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: DUP-7

Lab Sample ID: 410-51060-3

| Analyte                     | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Ethylbenzene                | 1600   |           | 670  | 53   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene      | 34000  |           | 670  | 67   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                     | 180    | J         | 670  | 80   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total              | 23000  |           | 1300 | 190  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene                 | 3100   |           | 670  | 270  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene            | 2400   |           | 670  | 53   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene - DL | 100000 |           | 6700 | 670  | ug/Kg | 500     | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 690    |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 22     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 10     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 22     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 14     | J         | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 75     |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 2200   |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 3000   |           | 28   | 6.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 1100   |           | 28   | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 24     | FL        | 1.8  | 0.74 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 30 (2)

Lab Sample ID: 410-51060-4

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 210    | J         | 690 | 69  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Client Sample ID: Pipe 30 (2) (Continued)

Lab Sample ID: 410-51060-4

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene                | 88     | J         | 690 | 83   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 330    | J         | 690 | 69   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 6.7    | J         | 30  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 8.5    | J         | 30  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 13     | J         | 30  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 9.8    | J         | 30  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 34     |           | 30  | 7.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 11     | J         | 30  | 6.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 54     |           | 2.4 | 0.97 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 4 (2)

Lab Sample ID: 410-51060-5

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Pyrene  | 4.1    | J         | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead    | 14     |           | 1.1 | 0.45 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 44 (2)

Lab Sample ID: 410-51060-6

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 140    | J         | 770 | 77   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 220    | J         | 770 | 77   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 290    |           | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 30     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 18     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 33     |           | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 23     | J         | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 68     |           | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 250    |           | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 470    |           | 31  | 7.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 710    |           | 31  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 32     |           | 2.1 | 0.86 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1044-P5 (3)

Lab Sample ID: 410-51060-7

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 39     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 17     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 24     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 33     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 22     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 28     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 36     |           | 24  | 5.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 34     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 120    |           | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 649-P3 (3)

Lab Sample ID: 410-51060-8

| Analyte              | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Anthracene           | 86     |           | 22 | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 240    |           | 22 | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 190    |           | 22 | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 220    |           | 22 | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 130    |           | 22 | 4.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Client Sample ID: 649-P3 (3) (Continued)

### Lab Sample ID: 410-51060-8

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Chrysene     | 230    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene     | 24     |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene | 360    |           | 22  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 460    |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 230    |           | 1.6 | 0.63 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 649-P1 (3)

### Lab Sample ID: 410-51060-9

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 1.4    | J         | 10  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 8.2    | J         | 10  | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 9.6    | J         | 20  | 2.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 7.5    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.1    | J         | 10  | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 20     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 25     | J         | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 35     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 32     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 27     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 31     |           | 26  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 31     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 83     |           | 2.1 | 0.82 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 649-P2 (3)

### Lab Sample ID: 410-51060-10

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane   | 1.5    | J         | 8.0 | 0.97 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene              | 3.1    | J         | 8.0 | 0.97 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 3.0    | J         | 8.0 | 0.80 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 42     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 830    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 920    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 1100   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 600    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 780    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 6.5    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 75     |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 1300   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 46     |           | 1.5 | 0.58 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 649-P4 (3)

### Lab Sample ID: 410-51060-11

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2-Dichloroethane     | 2.3    | J         | 7.6 | 0.91 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 1.1    | J         | 7.6 | 0.76 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 19     |           | 7.6 | 0.91 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 11     | J         | 15  | 2.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 13     |           | 7.6 | 0.76 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.8    | J         | 7.6 | 0.76 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 11     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 24     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 28     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Client Sample ID: 649-P4 (3) (Continued)

Lab Sample ID: 410-51060-11

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 50     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 31     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 40     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 41     |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 42     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 580    |           | 1.8 | 0.73 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 64 (2)

Lab Sample ID: 410-51060-12

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 1.9    | J         | 9.6 | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 2.2    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene   | 15     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 15     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 20     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 11     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 15     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 16     | J         | 24  | 5.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 23     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 190    |           | 2.1 | 0.83 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 66 (2)

Lab Sample ID: 410-51060-13

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 4.5    | J         | 8.8 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 3.2    | J         | 8.8 | 0.88 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 5.4    | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 16     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 17     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 25     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 17     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 18     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 22     | J         | 24  | 5.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 24     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 180    |           | 1.8 | 0.73 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 65 (2)

Lab Sample ID: 410-51060-14

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzene              | 0.84   | J         | 8.0 | 0.80 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 16     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 25     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 25     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 34     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 21     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 35     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 11     | J         | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 74     |           | 22  | 5.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 65     |           | 22  | 4.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 44     |           | 1.9 | 0.76 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-51060-15**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 27 (2)

Lab Sample ID: 410-51060-1

Date Collected: 08/11/21 13:00

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 72.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 770  | 61  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| 1,2-Dichloroethane          | ND     |           | 770  | 92  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Toluene                     | ND     |           | 770  | 92  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Xylenes, Total              | ND     |           | 1500 | 210 | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Methyl tertiary butyl ether | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Benzene                     | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Naphthalene                 | ND     |           | 770  | 310 | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Isopropylbenzene            | ND     |           | 770  | 61  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| 1,2-Dibromoethane           | ND     |           | 770  | 61  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:15 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 84        |           | 54 - 135 | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| 4-Bromofluorobenzene (Surr)  | 79        |           | 50 - 131 | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Dibromofluoromethane (Surr)  | 81        |           | 50 - 141 | 08/13/21 10:25 | 08/17/21 18:15 | 50      |
| Toluene-d8 (Surr)            | 81        |           | 52 - 141 | 08/13/21 10:25 | 08/17/21 18:15 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Benzo[a]anthracene   | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Benzo[a]pyrene       | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Benzo[b]fluoranthene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Chrysene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Fluorene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Phenanthrene         | 8.4    | J         | 23 | 5.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Pyrene               | 5.4    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 15:48 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 15:48 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 15:48 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 40     |           | 1.7 | 0.69 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:17 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.2   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: Pipe 29 (2)

Lab Sample ID: 410-51060-2

Date Collected: 08/11/21 13:15

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 59.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | 1000   |           | 590 | 47  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| 1,2-Dichloroethane | 95     | J         | 590 | 71  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 29 (2)

Lab Sample ID: 410-51060-2

Date Collected: 08/11/21 13:15

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 59.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | 18000     |           | 590      | 59  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Toluene                      | 4100      |           | 590      | 71  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Xylenes, Total               | 10000     |           | 1200     | 170 | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 590      | 59  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Benzene                      | 660       |           | 590      | 59  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Naphthalene                  | 4800      |           | 590      | 240 | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| 1,2,4-Trimethylbenzene       | 10000     |           | 590      | 59  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Isopropylbenzene             | 240 J     |           | 590      | 47  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| 1,2-Dibromoethane            | ND        |           | 590      | 47  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 86        |           | 54 - 135 |     |       |   | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| 4-Bromofluorobenzene (Surr)  | 68        |           | 50 - 131 |     |       |   | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Dibromofluoromethane (Surr)  | 67        |           | 50 - 141 |     |       |   | 08/13/21 10:25 | 08/17/21 18:36 | 50      |
| Toluene-d8 (Surr)            | 67        |           | 52 - 141 |     |       |   | 08/13/21 10:25 | 08/17/21 18:36 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 660       |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Benzo[a]anthracene      | 21 J      |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Benzo[a]pyrene          | 11 J      |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Benzo[b]fluoranthene    | 20 J      |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Benzo[g,h,i]perylene    | 17 J      |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Chrysene                | 87        |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Fluorene                | 2500      |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Phenanthrene            | 3200      |           | 28       | 6.7 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Pyrene                  | 1300      |           | 28       | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 58        |           | 39 - 100 |     |       |   | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  |     |       |   | 08/14/21 08:45 | 08/16/21 16:11 | 1       |
| p-Terphenyl-d14 (Surr)  | 68        |           | 45 - 108 |     |       |   | 08/14/21 08:45 | 08/16/21 16:11 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 22     |           | 2.1 | 0.85 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:20 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 40.8   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: DUP-7

Lab Sample ID: 410-51060-3

Date Collected: 08/11/21 00:00

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 59.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | 1600   |           | 670 | 53  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| 1,2-Dichloroethane     | ND     |           | 670 | 80  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| 1,3,5-Trimethylbenzene | 34000  |           | 670 | 67  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| Toluene                | 180 J  |           | 670 | 80  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: DUP-7

Lab Sample ID: 410-51060-3

Date Collected: 08/11/21 00:00

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 59.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result       | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------|------|-----|-------|---|----------------|----------------|---------|
| <b>Xylenes, Total</b>       | <b>23000</b> |           | 1300 | 190 | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| Methyl tertiary butyl ether | ND           |           | 670  | 67  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| Benzene                     | ND           |           | 670  | 67  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| <b>Naphthalene</b>          | <b>3100</b>  |           | 670  | 270 | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| <b>Isopropylbenzene</b>     | <b>2400</b>  |           | 670  | 53  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| 1,2-Dibromoethane           | ND           |           | 670  | 53  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 18:45 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| 4-Bromofluorobenzene (Surr)  | 110       |           | 50 - 131 | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| Dibromofluoromethane (Surr)  | 75        |           | 50 - 141 | 08/13/21 10:25 | 08/18/21 18:45 | 50      |
| Toluene-d8 (Surr)            | 88        |           | 52 - 141 | 08/13/21 10:25 | 08/18/21 18:45 | 50      |

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 100000    |           | 6700     | 670 | ug/Kg | ☼ | 08/13/21 10:25 | 08/18/21 19:06 | 500     |
|                              |           |           |          |     |       |   |                |                |         |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 |     |       |   | 08/13/21 10:25 | 08/18/21 19:06 | 500     |
| 4-Bromofluorobenzene (Surr)  | 153       | S1+       | 50 - 131 |     |       |   | 08/13/21 10:25 | 08/18/21 19:06 | 500     |
| Dibromofluoromethane (Surr)  | 85        |           | 50 - 141 |     |       |   | 08/13/21 10:25 | 08/18/21 19:06 | 500     |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 |     |       |   | 08/13/21 10:25 | 08/18/21 19:06 | 500     |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result      | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>690</b>  |           | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>22</b>   | J         | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>10</b>   | J         | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>22</b>   | J         | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>14</b>   | J         | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Chrysene</b>             | <b>75</b>   |           | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Fluorene</b>             | <b>2200</b> |           | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Phenanthrene</b>         | <b>3000</b> |           | 28 | 6.7 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| <b>Pyrene</b>               | <b>1100</b> |           | 28 | 5.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:33 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 45        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| Nitrobenzene-d5 (Surr)  | 39        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 16:33 | 1       |
| p-Terphenyl-d14 (Surr)  | 66        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 16:33 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| <b>Lead</b> | <b>24</b> | FL        | 1.8 | 0.74 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 12:57 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-----|-----|------|---|----------|----------------|---------|
| <b>Percent Moisture</b> | <b>40.3</b> |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 30 (2)

Lab Sample ID: 410-51060-4

Date Collected: 08/11/21 13:40

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 54.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 690  | 55  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| 1,2-Dichloroethane          | ND     |           | 690  | 83  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| 1,3,5-Trimethylbenzene      | 210    | J         | 690  | 69  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Toluene                     | 88     | J         | 690  | 83  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Xylenes, Total              | ND     |           | 1400 | 190 | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Methyl tertiary butyl ether | ND     |           | 690  | 69  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Benzene                     | ND     |           | 690  | 69  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Naphthalene                 | ND     |           | 690  | 280 | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| 1,2,4-Trimethylbenzene      | 330    | J         | 690  | 69  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Isopropylbenzene            | ND     |           | 690  | 55  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| 1,2-Dibromoethane           | ND     |           | 690  | 55  | ug/Kg | ✱ | 08/13/21 10:25 | 08/17/21 19:18 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 90        |           | 54 - 135 | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| 4-Bromofluorobenzene (Surr)  | 76        |           | 50 - 131 | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Dibromofluoromethane (Surr)  | 80        |           | 50 - 141 | 08/13/21 10:25 | 08/17/21 19:18 | 50      |
| Toluene-d8 (Surr)            | 80        |           | 52 - 141 | 08/13/21 10:25 | 08/17/21 19:18 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Benzo[a]anthracene   | 6.7    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Benzo[a]pyrene       | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Benzo[b]fluoranthene | ND     |           | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Benzo[g,h,i]perylene | 8.5    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Chrysene             | 13     | J         | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Fluorene             | 9.8    | J         | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Phenanthrene         | 34     |           | 30 | 7.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Pyrene               | 11     | J         | 30 | 6.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 16:56 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| Nitrobenzene-d5 (Surr)  | 66        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 16:56 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 16:56 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 54     |           | 2.4 | 0.97 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:29 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 45.2   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: Pipe 4 (2)

Lab Sample ID: 410-51060-5

Date Collected: 08/11/21 13:55

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| 1,2-Dichloroethane | ND     |           | 5.4 | 0.65 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 4 (2)

Lab Sample ID: 410-51060-5

Date Collected: 08/11/21 13:55

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Toluene                      | ND        |           | 5.4      | 0.65 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Benzene                      | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Naphthalene                  | ND        |           | 5.4      | 2.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Isopropylbenzene             | ND        |           | 5.4      | 0.43 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.4      | 0.43 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 |      |       |   | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 |      |       |   | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |      |       |   | 08/13/21 10:27 | 08/16/21 19:53 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 |      |       |   | 08/13/21 10:27 | 08/16/21 19:53 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Benzo[a]anthracene      | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Benzo[a]pyrene          | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Chrysene                | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Fluorene                | ND        |           | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Phenanthrene            | ND        |           | 18       | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Pyrene                  | 4.1       | J         | 18       | 3.6 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 |     |       |   | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 32 - 97  |     |       |   | 08/14/21 08:45 | 08/16/21 17:18 | 1       |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108 |     |       |   | 08/14/21 08:45 | 08/16/21 17:18 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 14     |           | 1.1 | 0.45 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:32 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.0   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: Pipe 44 (2)

Lab Sample ID: 410-51060-6

Date Collected: 08/11/21 14:40

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 53.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 770 | 61  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| 1,2-Dichloroethane     | ND     |           | 770 | 92  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| 1,3,5-Trimethylbenzene | 140    | J         | 770 | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Toluene                | ND     |           | 770 | 92  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 44 (2)

Lab Sample ID: 410-51060-6

Date Collected: 08/11/21 14:40

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 53.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 1500 | 210 | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Methyl tertiary butyl ether | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Benzene                     | ND     |           | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Naphthalene                 | ND     |           | 770  | 310 | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| 1,2,4-Trimethylbenzene      | 220    | J         | 770  | 77  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Isopropylbenzene            | ND     |           | 770  | 61  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| 1,2-Dibromoethane           | ND     |           | 770  | 61  | ug/Kg | ✱ | 08/13/21 10:25 | 08/18/21 19:26 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 54 - 135 | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Dibromofluoromethane (Surr)  | 69        |           | 50 - 141 | 08/13/21 10:25 | 08/18/21 19:26 | 50      |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 08/13/21 10:25 | 08/18/21 19:26 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 290    |           | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Benzo[a]anthracene   | 30     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Benzo[a]pyrene       | 18     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Benzo[b]fluoranthene | 33     |           | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Benzo[g,h,i]perylene | 23     | J         | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Chrysene             | 68     |           | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Fluorene             | 250    |           | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Phenanthrene         | 470    |           | 31 | 7.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Pyrene               | 710    |           | 31 | 6.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 17:40 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 57        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 17:40 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 17:40 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 32     |           | 2.1 | 0.86 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 14:07 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 46.7   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: 1044-P5 (3)

Lab Sample ID: 410-51060-7

Date Collected: 08/12/21 09:00

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 69.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| 1,2-Dichloroethane          | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Toluene                     | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Xylenes, Total              | ND     |           | 20 | 2.8  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Methyl tertiary butyl ether | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: 1044-P5 (3)

Lab Sample ID: 410-51060-7

Date Collected: 08/12/21 09:00

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 69.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Naphthalene            | ND     |           | 10 | 4.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Isopropylbenzene       | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| 1,2-Dibromoethane      | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/19/21 14:46 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 08/13/21 10:27 | 08/19/21 14:46 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/13/21 10:27 | 08/19/21 14:46 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 39     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Benzo[a]anthracene   | 17 J   |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Benzo[a]pyrene       | 24     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Benzo[b]fluoranthene | 33     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Benzo[g,h,i]perylene | 22 J   |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Chrysene             | 28     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Fluorene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Phenanthrene         | 36     |           | 24 | 5.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Pyrene               | 34     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:03 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 65        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| Nitrobenzene-d5 (Surr)  | 59        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 18:03 | 1       |
| p-Terphenyl-d14 (Surr)  | 72        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 18:03 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 1.5 | 0.59 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:45 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 30.9   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: 649-P3 (3)

Lab Sample ID: 410-51060-8

Date Collected: 08/12/21 09:30

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 74.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.3 | 0.66 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.3 | 0.99 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.3 | 0.83 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Toluene                     | ND     |           | 8.3 | 0.99 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Xylenes, Total              | ND     |           | 17  | 2.3  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.3 | 0.83 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Benzene                     | ND     |           | 8.3 | 0.83 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Naphthalene                 | ND     |           | 8.3 | 3.3  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: 649-P3 (3)

Lab Sample ID: 410-51060-8

Date Collected: 08/12/21 09:30

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 74.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | ND        |           | 8.3      | 0.83 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Isopropylbenzene             | ND        |           | 8.3      | 0.66 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| 1,2-Dibromoethane            | ND        |           | 8.3      | 0.66 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 |      |       |   | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 |      |       |   | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 |      |       |   | 08/13/21 10:27 | 08/16/21 16:48 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 |      |       |   | 08/13/21 10:27 | 08/16/21 16:48 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 86        |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Benzo[a]anthracene      | 240       |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Benzo[a]pyrene          | 190       |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Benzo[b]fluoranthene    | 220       |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Benzo[g,h,i]perylene    | 130       |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Chrysene                | 230       |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Fluorene                | 24        |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Phenanthrene            | 360       |           | 22       | 5.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Pyrene                  | 460       |           | 22       | 4.5 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 |     |       |   | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  |     |       |   | 08/14/21 08:45 | 08/16/21 18:25 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 |     |       |   | 08/14/21 08:45 | 08/16/21 18:25 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 230    |           | 1.6 | 0.63 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:42 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.9   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: 649-P1 (3)

Lab Sample ID: 410-51060-9

Date Collected: 08/12/21 09:50

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 63.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.82 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| 1,2-Dichloroethane          | 1.4 J  |           | 10 | 1.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Toluene                     | 8.2 J  |           | 10 | 1.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Xylenes, Total              | 9.6 J  |           | 20 | 2.9  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Methyl tertiary butyl ether | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Benzene                     | 7.5 J  |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Naphthalene                 | ND     |           | 10 | 4.1  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| 1,2,4-Trimethylbenzene      | 1.1 J  |           | 10 | 1.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.82 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: 649-P1 (3)

Lab Sample ID: 410-51060-9

Date Collected: 08/12/21 09:50

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 63.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 10       | 0.82 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 54 - 135 |      |       |   | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 |      |       |   | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 |      |       |   | 08/13/21 10:27 | 08/16/21 20:16 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 |      |       |   | 08/13/21 10:27 | 08/16/21 20:16 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Benzo[a]anthracene      | 20        | J         | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Benzo[a]pyrene          | 25        | J         | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Benzo[b]fluoranthene    | 35        |           | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Benzo[g,h,i]perylene    | 32        |           | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Chrysene                | 27        |           | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Fluorene                | ND        |           | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Phenanthrene            | 31        |           | 26       | 6.3 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Pyrene                  | 31        |           | 26       | 5.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 71        |           | 39 - 100 |     |       |   | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| Nitrobenzene-d5 (Surr)  | 58        |           | 32 - 97  |     |       |   | 08/14/21 08:45 | 08/16/21 18:48 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 |     |       |   | 08/14/21 08:45 | 08/16/21 18:48 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 83     |           | 2.1 | 0.82 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 36.7   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: 649-P2 (3)

Lab Sample ID: 410-51060-10

Date Collected: 08/12/21 10:05

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 79.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.0 | 0.64 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| 1,2-Dichloroethane          | 1.5    | J         | 8.0 | 0.97 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.0 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Toluene                     | 3.1    | J         | 8.0 | 0.97 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.3  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.0 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Benzene                     | 3.0    | J         | 8.0 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Naphthalene                 | ND     |           | 8.0 | 3.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.0 | 0.80 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Isopropylbenzene            | ND     |           | 8.0 | 0.64 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.0 | 0.64 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 20:39 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: 649-P2 (3)

Lab Sample ID: 410-51060-10

Date Collected: 08/12/21 10:05

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 79.1

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/13/21 10:27 | 08/16/21 20:39 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 | 08/13/21 10:27 | 08/16/21 20:39 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 42     |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Benzo[a]anthracene   | 830    |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Benzo[a]pyrene       | 920    |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Benzo[b]fluoranthene | 1100   |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Benzo[g,h,i]perylene | 600    |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Chrysene             | 780    |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Fluorene             | 6.5 J  |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Phenanthrene         | 75     |           | 21 | 5.0 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Pyrene               | 1300   |           | 21 | 4.2 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:10 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 19:10 | 1       |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 19:10 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 46     |           | 1.5 | 0.58 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:36 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.9   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: 649-P4 (3)

Lab Sample ID: 410-51060-11

Date Collected: 08/12/21 10:30

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 75.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.6 | 0.61 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| 1,2-Dichloroethane          | 2.3 J  |           | 7.6 | 0.91 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| 1,3,5-Trimethylbenzene      | 1.1 J  |           | 7.6 | 0.76 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Toluene                     | 19     |           | 7.6 | 0.91 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Xylenes, Total              | 11 J   |           | 15  | 2.1  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.6 | 0.76 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Benzene                     | 13     |           | 7.6 | 0.76 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Naphthalene                 | ND     |           | 7.6 | 3.0  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| 1,2,4-Trimethylbenzene      | 1.8 J  |           | 7.6 | 0.76 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Isopropylbenzene            | ND     |           | 7.6 | 0.61 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.6 | 0.61 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 17:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/13/21 10:27 | 08/16/21 17:57 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/13/21 10:27 | 08/16/21 17:57 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: 649-P4 (3)

Lab Sample ID: 410-51060-11

Date Collected: 08/12/21 10:30

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 75.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 105       |           | 52 - 141 | 08/13/21 10:27 | 08/16/21 17:57 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 11     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Benzo[a]anthracene   | 24     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Benzo[a]pyrene       | 28     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Benzo[b]fluoranthene | 50     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Benzo[g,h,i]perylene | 31     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Chrysene             | 40     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Fluorene             | ND     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Phenanthrene         | 41     |           | 22 | 5.3 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Pyrene               | 42     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:33 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 19:33 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 19:33 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 580    |           | 1.8 | 0.73 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:58 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.0   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: Pipe 64 (2)

Lab Sample ID: 410-51060-12

Date Collected: 08/12/21 10:45

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 68.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.6 | 1.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 9.6 | 0.96 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Toluene                     | 1.9    | J         | 9.6 | 1.2  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Xylenes, Total              | ND     |           | 19  | 2.7  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.6 | 0.96 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Benzene                     | 2.2    | J         | 9.6 | 0.96 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Naphthalene                 | ND     |           | 9.6 | 3.9  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 9.6 | 0.96 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Isopropylbenzene            | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:02 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Dibromofluoromethane (Surr)  | 108       |           | 50 - 141 | 08/13/21 10:27 | 08/16/21 21:02 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/13/21 10:27 | 08/16/21 21:02 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 64 (2)

Lab Sample ID: 410-51060-12

Date Collected: 08/12/21 10:45

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 68.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Benzo[a]anthracene   | 15     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Benzo[a]pyrene       | 15     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Benzo[b]fluoranthene | 20     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Benzo[g,h,i]perylene | 11     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Chrysene             | 15     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Fluorene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Phenanthrene         | 16     | J         | 24 | 5.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Pyrene               | 23     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/16/21 19:55 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 77        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| Nitrobenzene-d5 (Surr)  | 60        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 19:55 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 19:55 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 190    |           | 2.1 | 0.83 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:55 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 31.5   |           | 1.0 | 1.0 | %    | — |          | 08/13/21 09:24 | 1       |

Client Sample ID: Pipe 66 (2)

Lab Sample ID: 410-51060-13

Date Collected: 08/12/21 11:10

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 68.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.8 | 0.70 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.8 | 1.1  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.8 | 0.88 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Toluene                     | 4.5    | J         | 8.8 | 1.1  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.5  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.8 | 0.88 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Benzene                     | 3.2    | J         | 8.8 | 0.88 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Naphthalene                 | ND     |           | 8.8 | 3.5  | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.8 | 0.88 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Isopropylbenzene            | ND     |           | 8.8 | 0.70 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.8 | 0.70 | ug/Kg | ✱ | 08/13/21 10:27 | 08/16/21 21:25 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 54 - 135 | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/13/21 10:27 | 08/16/21 21:25 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/13/21 10:27 | 08/16/21 21:25 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene         | 5.4    | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Benzo[a]anthracene | 16     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 66 (2)

Lab Sample ID: 410-51060-13

Date Collected: 08/12/21 11:10

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 68.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene       | 17     | J         | 24 | 4.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Benzo[b]fluoranthene | 25     |           | 24 | 4.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Benzo[g,h,i]perylene | 17     | J         | 24 | 4.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Chrysene             | 18     | J         | 24 | 4.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Fluorene             | ND     |           | 24 | 4.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Phenanthrene         | 22     | J         | 24 | 5.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Pyrene               | 24     |           | 24 | 4.8 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 00:40 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 66        |           | 39 - 100 | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| Nitrobenzene-d5 (Surr)  | 52        |           | 32 - 97  | 08/14/21 08:45 | 08/17/21 00:40 | 1       |
| p-Terphenyl-d14 (Surr)  | 75        |           | 45 - 108 | 08/14/21 08:45 | 08/17/21 00:40 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 180    |           | 1.8 | 0.73 | mg/Kg | ☆ | 08/13/21 12:16 | 08/17/21 13:52 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 31.3   |           | 1.0 | 1.0 | %    | - |          | 08/13/21 09:24 | 1       |

Client Sample ID: Pipe 65 (2)

Lab Sample ID: 410-51060-14

Date Collected: 08/12/21 11:20

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 74.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.0 | 0.64 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.0 | 0.96 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.0 | 0.80 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Toluene                     | ND     |           | 8.0 | 0.96 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.2  | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.0 | 0.80 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Benzene                     | 0.84   | J         | 8.0 | 0.80 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Naphthalene                 | ND     |           | 8.0 | 3.2  | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.0 | 0.80 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Isopropylbenzene            | ND     |           | 8.0 | 0.64 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.0 | 0.64 | ug/Kg | ☆ | 08/13/21 10:27 | 08/18/21 18:37 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/13/21 10:27 | 08/18/21 18:37 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/13/21 10:27 | 08/18/21 18:37 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 16     | J         | 22 | 4.4 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Benzo[a]anthracene   | 25     |           | 22 | 4.4 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Benzo[a]pyrene       | 25     |           | 22 | 4.4 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Benzo[b]fluoranthene | 34     |           | 22 | 4.4 | ug/Kg | ☆ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

Client Sample ID: Pipe 65 (2)

Lab Sample ID: 410-51060-14

Date Collected: 08/12/21 11:20

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 74.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene | 21     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Chrysene             | 35     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Fluorene             | 11     | J         | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Phenanthrene         | 74     |           | 22 | 5.3 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Pyrene               | 65     |           | 22 | 4.4 | ug/Kg | ✱ | 08/14/21 08:45 | 08/17/21 01:02 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 73        |           | 39 - 100 | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| Nitrobenzene-d5 (Surr)  | 62        |           | 32 - 97  | 08/14/21 08:45 | 08/17/21 01:02 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 | 08/14/21 08:45 | 08/17/21 01:02 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 44     |           | 1.9 | 0.76 | mg/Kg | ✱ | 08/13/21 12:16 | 08/17/21 13:49 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.9   |           | 1.0 | 1.0 | %    |   |          | 08/13/21 09:24 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-51060-15

Date Collected: 08/12/21 00:00

Matrix: Water

Date Received: 08/12/21 17:42

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:24 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/13/21 11:24 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:24 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 11:24 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:24 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/13/21 11:24 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/13/21 11:24 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 11:24 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 11:24 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 11:24 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 11:24 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 80 - 120 |          | 08/13/21 11:24 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 80 - 120 |          | 08/13/21 11:24 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 80 - 120 |          | 08/13/21 11:24 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 80 - 120 |          | 08/13/21 11:24 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-51060-1       | Pipe 27 (2)            | 84   | 79              | 81               | 81              |
| 410-51060-2       | Pipe 29 (2)            | 86   | 68              | 67               | 67              |
| 410-51060-3       | DUP-7                  | 102  | 110             | 75               | 88              |
| 410-51060-3 - DL  | DUP-7                  | 102  | 153 S1+         | 85               | 95              |
| 410-51060-4       | Pipe 30 (2)            | 90   | 76              | 80               | 80              |
| 410-51060-5       | Pipe 4 (2)             | 116  | 94              | 106              | 97              |
| 410-51060-6       | Pipe 44 (2)            | 104  | 91              | 69               | 95              |
| 410-51060-7       | 1044-P5 (3)            | 113  | 81              | 107              | 107             |
| 410-51060-8       | 649-P3 (3)             | 111  | 95              | 104              | 98              |
| 410-51060-9       | 649-P1 (3)             | 110  | 85              | 105              | 106             |
| 410-51060-10      | 649-P2 (3)             | 111  | 88              | 106              | 106             |
| 410-51060-11      | 649-P4 (3)             | 109  | 88              | 103              | 105             |
| 410-51060-12      | Pipe 64 (2)            | 113  | 84              | 108              | 107             |
| 410-51060-13      | Pipe 66 (2)            | 110  | 85              | 105              | 107             |
| 410-51060-14      | Pipe 65 (2)            | 114  | 93              | 105              | 98              |
| LCS 410-160723/5  | Lab Control Sample     | 103  | 98              | 100              | 101             |
| LCS 410-161178/4  | Lab Control Sample     | 100  | 87              | 98               | 92              |
| LCS 410-161724/5  | Lab Control Sample     | 103  | 87              | 99               | 92              |
| LCS 410-161737/5  | Lab Control Sample     | 102  | 97              | 99               | 102             |
| LCS 410-162254/5  | Lab Control Sample     | 101  | 96              | 99               | 101             |
| LCSD 410-160723/6 | Lab Control Sample Dup | 100  | 96              | 99               | 101             |
| LCSD 410-161178/5 | Lab Control Sample Dup | 102  | 86              | 99               | 93              |
| LCSD 410-161724/6 | Lab Control Sample Dup | 103  | 88              | 100              | 93              |
| LCSD 410-161737/6 | Lab Control Sample Dup | 101  | 97              | 99               | 102             |
| LCSD 410-162254/6 | Lab Control Sample Dup | 101  | 98              | 100              | 102             |
| MB 410-160723/8   | Method Blank           | 104  | 95              | 100              | 99              |
| MB 410-161178/7   | Method Blank           | 101  | 84              | 98               | 90              |
| MB 410-161724/8   | Method Blank           | 101  | 85              | 97               | 91              |
| MB 410-161737/8   | Method Blank           | 104  | 93              | 101              | 98              |
| MB 410-162254/10  | Method Blank           | 103  | 93              | 101              | 98              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-51060-15      | Trip Blank             | 98   | 103             | 101              | 94              |
| LCS 410-160096/4  | Lab Control Sample     | 97   | 105             | 101              | 94              |
| LCSD 410-160096/5 | Lab Control Sample Dup | 97   | 103             | 100              | 93              |
| MB 410-160096/6   | Method Blank           | 97   | 104             | 100              | 93              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-51060-1

Project/Site: PBF Logistics

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-51060-1        | Pipe 27 (2)        | 82   | 66             | 82                 |
| 410-51060-2        | Pipe 29 (2)        | 58   | 69             | 68                 |
| 410-51060-3        | DUP-7              | 45   | 39             | 66                 |
| 410-51060-4        | Pipe 30 (2)        | 80   | 66             | 83                 |
| 410-51060-5        | Pipe 4 (2)         | 84   | 70             | 88                 |
| 410-51060-6        | Pipe 44 (2)        | 57   | 68             | 79                 |
| 410-51060-7        | 1044-P5 (3)        | 65   | 59             | 72                 |
| 410-51060-8        | 649-P3 (3)         | 79   | 65             | 79                 |
| 410-51060-9        | 649-P1 (3)         | 71   | 58             | 81                 |
| 410-51060-10       | 649-P2 (3)         | 79   | 64             | 79                 |
| 410-51060-11       | 649-P4 (3)         | 81   | 65             | 83                 |
| 410-51060-12       | Pipe 64 (2)        | 77   | 60             | 80                 |
| 410-51060-12 MS    | Pipe 64 (2)        | 74   | 64             | 78                 |
| 410-51060-12 MSD   | Pipe 64 (2)        | 73   | 60             | 74                 |
| 410-51060-13       | Pipe 66 (2)        | 66   | 52             | 75                 |
| 410-51060-14       | Pipe 65 (2)        | 73   | 62             | 81                 |
| LCS 410-160489/2-A | Lab Control Sample | 77   | 65             | 80                 |
| MB 410-160489/1-A  | Method Blank       | 85   | 72             | 91                 |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-160723/8

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/16/21 14:05 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/16/21 14:05 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 08/16/21 14:05 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95           |              | 50 - 131 |          | 08/16/21 14:05 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/16/21 14:05 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 52 - 141 |          | 08/16/21 14:05 | 1       |

Lab Sample ID: LCS 410-160723/5

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 17.5       |               | ug/Kg |   | 87   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 18.6       |               | ug/Kg |   | 93   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.3       |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                     | 20.0        | 17.6       |               | ug/Kg |   | 88   | 80 - 120     |
| Xylenes, Total              | 60.0        | 52.7       |               | ug/Kg |   | 88   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.5       |               | ug/Kg |   | 102  | 72 - 120     |
| Benzene                     | 20.0        | 18.4       |               | ug/Kg |   | 92   | 80 - 120     |
| Naphthalene                 | 20.0        | 18.2       |               | ug/Kg |   | 91   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.6       |               | ug/Kg |   | 88   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 17.3       |               | ug/Kg |   | 86   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.1       |               | ug/Kg |   | 96   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: LCSD 410-160723/6

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 17.7        |                | ug/Kg |   | 89   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane | 20.0        | 18.2        |                | ug/Kg |   | 91   | 71 - 128     | 2   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-160723/6

Matrix: Solid

Analysis Batch: 160723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 17.7        |                | ug/Kg |   | 88   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 17.7        |                | ug/Kg |   | 89   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 53.3        |                | ug/Kg |   | 89   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.6        |                | ug/Kg |   | 98   | 72 - 120     | 4   | 30        |
| Benzene                     | 20.0        | 18.3        |                | ug/Kg |   | 92   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 17.0        |                | ug/Kg |   | 85   | 48 - 130     | 6   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.9        |                | ug/Kg |   | 90   | 73 - 120     | 2   | 30        |
| Isopropylbenzene            | 20.0        | 17.4        |                | ug/Kg |   | 87   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 20.0        | 18.6        |                | ug/Kg |   | 93   | 76 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 96             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 101            |                | 52 - 141 |

Lab Sample ID: MB 410-161178/7

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/17/21 10:51 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/17/21 10:51 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/17/21 10:51 | 50      |
| 4-Bromofluorobenzene (Surr)  | 84           |              | 50 - 131 |          | 08/17/21 10:51 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/17/21 10:51 | 50      |
| Toluene-d8 (Surr)            | 90           |              | 52 - 141 |          | 08/17/21 10:51 | 50      |

Lab Sample ID: LCS 410-161178/4

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 1000        | 949        |               | ug/Kg |   | 95   | 78 - 120     |
| 1,2-Dichloroethane     | 1000        | 950        |               | ug/Kg |   | 95   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 871        |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                | 1000        | 974        |               | ug/Kg |   | 97   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-161178/4

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 3000        | 2960       |               | ug/Kg |   | 99   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 988        |               | ug/Kg |   | 99   | 72 - 120     |
| Benzene                     | 1000        | 1000       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 1000        | 922        |               | ug/Kg |   | 92   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 871        |               | ug/Kg |   | 87   | 73 - 120     |
| Isopropylbenzene            | 1000        | 980        |               | ug/Kg |   | 98   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 993        |               | ug/Kg |   | 99   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 98            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 92            |               | 52 - 141 |

Lab Sample ID: LCSD 410-161178/5

Matrix: Solid

Analysis Batch: 161178

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 960         |                | ug/Kg |   | 96   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 926         |                | ug/Kg |   | 93   | 71 - 128     | 3   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 885         |                | ug/Kg |   | 89   | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 970         |                | ug/Kg |   | 97   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 3000        | 2940        |                | ug/Kg |   | 98   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 1000        |                | ug/Kg |   | 100  | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 2   | 30        |
| Naphthalene                 | 1000        | 930         |                | ug/Kg |   | 93   | 48 - 130     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 873         |                | ug/Kg |   | 87   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 1000        | 985         |                | ug/Kg |   | 98   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 1000        | 992         |                | ug/Kg |   | 99   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 86             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 93             |                | 52 - 141 |

Lab Sample ID: MB 410-161724/8

Matrix: Solid

Analysis Batch: 161724

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/18/21 13:23 | 50      |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-161724/8

Matrix: Solid

Analysis Batch: 161724

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 250 | 25  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| Naphthalene            | ND        |              | 250 | 100 | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| Isopropylbenzene       | ND        |              | 250 | 20  | ug/Kg |   |          | 08/18/21 13:23 | 50      |
| 1,2-Dibromoethane      | ND        |              | 250 | 20  | ug/Kg |   |          | 08/18/21 13:23 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/18/21 13:23 | 50      |
| 4-Bromofluorobenzene (Surr)  | 85           |              | 50 - 131 |          | 08/18/21 13:23 | 50      |
| Dibromofluoromethane (Surr)  | 97           |              | 50 - 141 |          | 08/18/21 13:23 | 50      |
| Toluene-d8 (Surr)            | 91           |              | 52 - 141 |          | 08/18/21 13:23 | 50      |

Lab Sample ID: LCS 410-161724/5

Matrix: Solid

Analysis Batch: 161724

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 944        |               | ug/Kg |   | 94   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 944        |               | ug/Kg |   | 94   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 864        |               | ug/Kg |   | 86   | 73 - 120     |
| Toluene                     | 1000        | 965        |               | ug/Kg |   | 97   | 80 - 120     |
| Xylenes, Total              | 3000        | 2940       |               | ug/Kg |   | 98   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 1010       |               | ug/Kg |   | 101  | 72 - 120     |
| Benzene                     | 1000        | 1020       |               | ug/Kg |   | 102  | 80 - 120     |
| Naphthalene                 | 1000        | 932        |               | ug/Kg |   | 93   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 861        |               | ug/Kg |   | 86   | 73 - 120     |
| Isopropylbenzene            | 1000        | 981        |               | ug/Kg |   | 98   | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 990        |               | ug/Kg |   | 99   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 87            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 92            |               | 52 - 141 |

Lab Sample ID: LCSD 410-161724/6

Matrix: Solid

Analysis Batch: 161724

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 959         |                | ug/Kg |   | 96   | 78 - 120     | 2   | 30        |
| 1,2-Dichloroethane          | 1000        | 938         |                | ug/Kg |   | 94   | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 883         |                | ug/Kg |   | 88   | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 990         |                | ug/Kg |   | 99   | 80 - 120     | 3   | 30        |
| Xylenes, Total              | 3000        | 2980        |                | ug/Kg |   | 99   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 1030        |                | ug/Kg |   | 103  | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 1040        |                | ug/Kg |   | 104  | 80 - 120     | 2   | 30        |
| Naphthalene                 | 1000        | 928         |                | ug/Kg |   | 93   | 48 - 130     | 0   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-161724/6

Matrix: Solid

Analysis Batch: 161724

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene | 1000        | 864         |                | ug/Kg |   | 86   | 73 - 120     | 0   | 30        |
| Isopropylbenzene       | 1000        | 993         |                | ug/Kg |   | 99   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane      | 1000        | 993         |                | ug/Kg |   | 99   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 88             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 93             |                | 52 - 141 |

Lab Sample ID: MB 410-161737/8

Matrix: Solid

Analysis Batch: 161737

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/18/21 12:22 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/18/21 12:22 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 08/18/21 12:22 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93           |              | 50 - 131 |          | 08/18/21 12:22 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/18/21 12:22 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/18/21 12:22 | 1       |

Lab Sample ID: LCS 410-161737/5

Matrix: Solid

Analysis Batch: 161737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 17.5       |               | ug/Kg |   | 88   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 18.4       |               | ug/Kg |   | 92   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.1       |               | ug/Kg |   | 85   | 73 - 120     |
| Toluene                     | 20.0        | 17.5       |               | ug/Kg |   | 87   | 80 - 120     |
| Xylenes, Total              | 60.0        | 52.9       |               | ug/Kg |   | 88   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.1       |               | ug/Kg |   | 91   | 72 - 120     |
| Benzene                     | 20.0        | 18.5       |               | ug/Kg |   | 92   | 80 - 120     |
| Naphthalene                 | 20.0        | 17.0       |               | ug/Kg |   | 85   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.4       |               | ug/Kg |   | 87   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 16.9       |               | ug/Kg |   | 85   | 77 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-161737/5

Matrix: Solid

Analysis Batch: 161737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,2-Dibromoethane | 20.0        | 18.8       |               | ug/Kg |   | 94   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 102           |               | 52 - 141 |

Lab Sample ID: LCSD 410-161737/6

Matrix: Solid

Analysis Batch: 161737

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 17.4        |                | ug/Kg |   | 87   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 18.1        |                | ug/Kg |   | 90   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.9        |                | ug/Kg |   | 85   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 17.6        |                | ug/Kg |   | 88   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 52.3        |                | ug/Kg |   | 87   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 17.6        |                | ug/Kg |   | 88   | 72 - 120     | 3   | 30        |
| Benzene                     | 20.0        | 18.1        |                | ug/Kg |   | 91   | 80 - 120     | 2   | 30        |
| Naphthalene                 | 20.0        | 16.5        |                | ug/Kg |   | 82   | 48 - 130     | 3   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.3        |                | ug/Kg |   | 86   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 20.0        | 16.8        |                | ug/Kg |   | 84   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 20.0        | 18.3        |                | ug/Kg |   | 92   | 76 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 102            |                | 52 - 141 |

Lab Sample ID: MB 410-162254/10

Matrix: Solid

Analysis Batch: 162254

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/19/21 14:05 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/19/21 14:05 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-162254/10

Matrix: Solid

Analysis Batch: 162254

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103             |                 | 54 - 135 |          | 08/19/21 14:05 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93              |                 | 50 - 131 |          | 08/19/21 14:05 | 1       |
| Dibromofluoromethane (Surr)  | 101             |                 | 50 - 141 |          | 08/19/21 14:05 | 1       |
| Toluene-d8 (Surr)            | 98              |                 | 52 - 141 |          | 08/19/21 14:05 | 1       |

Lab Sample ID: LCS 410-162254/5

Matrix: Solid

Analysis Batch: 162254

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Ethylbenzene                | 20.0           | 18.8          |                  | ug/Kg |   | 94   | 78 - 120        |
| 1,2-Dichloroethane          | 20.0           | 19.2          |                  | ug/Kg |   | 96   | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 73 - 120        |
| Toluene                     | 20.0           | 18.5          |                  | ug/Kg |   | 92   | 80 - 120        |
| Xylenes, Total              | 60.0           | 56.2          |                  | ug/Kg |   | 94   | 75 - 120        |
| Methyl tertiary butyl ether | 20.0           | 18.7          |                  | ug/Kg |   | 94   | 72 - 120        |
| Benzene                     | 20.0           | 19.7          |                  | ug/Kg |   | 98   | 80 - 120        |
| Naphthalene                 | 20.0           | 17.9          |                  | ug/Kg |   | 89   | 48 - 130        |
| 1,2,4-Trimethylbenzene      | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 73 - 120        |
| Isopropylbenzene            | 20.0           | 18.5          |                  | ug/Kg |   | 92   | 77 - 120        |
| 1,2-Dibromoethane           | 20.0           | 19.3          |                  | ug/Kg |   | 97   | 76 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 96               |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99               |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 101              |                  | 52 - 141 |

Lab Sample ID: LCSD 410-162254/6

Matrix: Solid

Analysis Batch: 162254

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|-----------------------------|----------------|----------------|-------------------|-------|---|------|-----------------|-----|--------------|
| Ethylbenzene                | 20.0           | 19.0           |                   | ug/Kg |   | 95   | 78 - 120        | 1   | 30           |
| 1,2-Dichloroethane          | 20.0           | 19.5           |                   | ug/Kg |   | 98   | 71 - 128        | 2   | 30           |
| 1,3,5-Trimethylbenzene      | 20.0           | 18.8           |                   | ug/Kg |   | 94   | 73 - 120        | 1   | 30           |
| Toluene                     | 20.0           | 18.7           |                   | ug/Kg |   | 94   | 80 - 120        | 1   | 30           |
| Xylenes, Total              | 60.0           | 56.8           |                   | ug/Kg |   | 95   | 75 - 120        | 1   | 30           |
| Methyl tertiary butyl ether | 20.0           | 18.9           |                   | ug/Kg |   | 95   | 72 - 120        | 1   | 30           |
| Benzene                     | 20.0           | 19.7           |                   | ug/Kg |   | 98   | 80 - 120        | 0   | 30           |
| Naphthalene                 | 20.0           | 17.6           |                   | ug/Kg |   | 88   | 48 - 130        | 2   | 30           |
| 1,2,4-Trimethylbenzene      | 20.0           | 18.7           |                   | ug/Kg |   | 93   | 73 - 120        | 0   | 30           |
| Isopropylbenzene            | 20.0           | 18.7           |                   | ug/Kg |   | 93   | 77 - 120        | 1   | 30           |
| 1,2-Dibromoethane           | 20.0           | 19.6           |                   | ug/Kg |   | 98   | 76 - 120        | 1   | 30           |

| Surrogate                    | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------------------|-------------------|-------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101               |                   | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98                |                   | 50 - 131 |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-162254/6

Matrix: Solid

Analysis Batch: 162254

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                             | LCSD      | LCSD      |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| Dibromofluoromethane (Surr) | 100       |           | 50 - 141 |
| Toluene-d8 (Surr)           | 102       |           | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-160096/6

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB     | MB        | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
|                             | Result | Qualifier |     |      |      |   |          |                |         |
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/13/21 10:12 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/13/21 10:12 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/13/21 10:12 | 1       |

| Surrogate                    | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                              | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 80 - 120 |          | 08/13/21 10:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |          | 08/13/21 10:12 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 80 - 120 |          | 08/13/21 10:12 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 80 - 120 |          | 08/13/21 10:12 | 1       |

Lab Sample ID: LCS 410-160096/4

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike | LCS    | LCS       | Unit | D | %Rec | %Rec.    |
|-----------------------------|-------|--------|-----------|------|---|------|----------|
|                             | Added | Result | Qualifier |      |   |      | Limits   |
| 1,2-Dibromoethane           | 20.0  | 16.2   |           | ug/L |   | 81   | 77 - 120 |
| Ethylbenzene                | 20.0  | 16.8   |           | ug/L |   | 84   | 80 - 120 |
| 1,2-Dichloroethane          | 20.0  | 17.6   |           | ug/L |   | 88   | 73 - 124 |
| 1,3,5-Trimethylbenzene      | 20.0  | 15.8   |           | ug/L |   | 79   | 75 - 120 |
| Toluene                     | 20.0  | 16.4   |           | ug/L |   | 82   | 80 - 120 |
| Xylenes, Total              | 60.0  | 49.9   |           | ug/L |   | 83   | 80 - 120 |
| Methyl tertiary butyl ether | 20.0  | 18.1   |           | ug/L |   | 90   | 69 - 122 |
| Benzene                     | 20.0  | 18.2   |           | ug/L |   | 91   | 80 - 120 |
| Naphthalene                 | 20.0  | 16.2   |           | ug/L |   | 81   | 53 - 124 |
| 1,2,4-Trimethylbenzene      | 20.0  | 15.6   |           | ug/L |   | 78   | 75 - 120 |
| Isopropylbenzene            | 20.0  | 16.3   |           | ug/L |   | 81   | 80 - 120 |

| Surrogate                    | LCS       | LCS       | Limits   |
|------------------------------|-----------|-----------|----------|
|                              | %Recovery | Qualifier |          |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 105       |           | 80 - 120 |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-160096/4

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

|                             | LCS       | LCS       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| Dibromofluoromethane (Surr) | 101       |           | 80 - 120 |
| Toluene-d8 (Surr)           | 94        |           | 80 - 120 |

Lab Sample ID: LCSD 410-160096/5

Matrix: Water

Analysis Batch: 160096

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,2-Dibromoethane           | 20.0        | 18.4        |                | ug/L |   | 92   | 77 - 120     | 13  | 30        |
| Ethylbenzene                | 20.0        | 18.9        |                | ug/L |   | 94   | 80 - 120     | 11  | 30        |
| 1,2-Dichloroethane          | 20.0        | 19.9        |                | ug/L |   | 99   | 73 - 124     | 12  | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.6        |                | ug/L |   | 88   | 75 - 120     | 11  | 30        |
| Toluene                     | 20.0        | 18.5        |                | ug/L |   | 93   | 80 - 120     | 12  | 30        |
| Xylenes, Total              | 60.0        | 55.7        |                | ug/L |   | 93   | 80 - 120     | 11  | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/L |   | 102  | 69 - 122     | 12  | 30        |
| Benzene                     | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 120     | 11  | 30        |
| Naphthalene                 | 20.0        | 17.9        |                | ug/L |   | 89   | 53 - 124     | 10  | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.7        |                | ug/L |   | 88   | 75 - 120     | 13  | 30        |
| Isopropylbenzene            | 20.0        | 18.2        |                | ug/L |   | 91   | 80 - 120     | 11  | 30        |

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 80 - 120 |
| Dibromofluoromethane (Surr)  | 100       |           | 80 - 120 |
| Toluene-d8 (Surr)            | 93        |           | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-160489/1-A

Matrix: Solid

Analysis Batch: 160678

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160489

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/14/21 08:45 | 08/16/21 10:11 | 1       |

|                         | MB        | MB        |          |                |                |         |  |  |  |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|--|--|--|
| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |  |  |  |
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 | 08/14/21 08:45 | 08/16/21 10:11 | 1       |  |  |  |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 08/14/21 08:45 | 08/16/21 10:11 | 1       |  |  |  |
| p-Terphenyl-d14 (Surr)  | 91        |           | 45 - 108 | 08/14/21 08:45 | 08/16/21 10:11 | 1       |  |  |  |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-160489/2-A

Matrix: Solid

Analysis Batch: 160678

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160489

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1380       |               | ug/Kg |   | 83   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1330       |               | ug/Kg |   | 80   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1410       |               | ug/Kg |   | 84   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1310       |               | ug/Kg |   | 79   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1370       |               | ug/Kg |   | 82   | 77 - 120     |
| Chrysene             | 1670        | 1310       |               | ug/Kg |   | 79   | 66 - 120     |
| Fluorene             | 1670        | 1360       |               | ug/Kg |   | 82   | 68 - 120     |
| Phenanthrene         | 1670        | 1350       |               | ug/Kg |   | 81   | 74 - 120     |
| Pyrene               | 1670        | 1320       |               | ug/Kg |   | 79   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 77            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 65            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 80            |               | 45 - 108 |

Lab Sample ID: 410-51060-12 MS

Matrix: Solid

Analysis Batch: 161049

Client Sample ID: Pipe 64 (2)

Prep Type: Total/NA

Prep Batch: 160489

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Anthracene           | ND            |                  | 2410        | 1820      |              | ug/Kg | ✖ | 76   | 75 - 120     |
| Benzo[a]anthracene   | 15            | J                | 2410        | 1820      |              | ug/Kg | ✖ | 75   | 73 - 120     |
| Benzo[a]pyrene       | 15            | J                | 2410        | 1770      | FL           | ug/Kg | ✖ | 73   | 80 - 123     |
| Benzo[b]fluoranthene | 20            | J                | 2410        | 1530      |              | ug/Kg | ✖ | 63   | 63 - 120     |
| Benzo[g,h,i]perylene | 11            | J                | 2410        | 1740      | FL           | ug/Kg | ✖ | 72   | 77 - 120     |
| Chrysene             | 15            | J                | 2410        | 1730      |              | ug/Kg | ✖ | 71   | 66 - 120     |
| Fluorene             | ND            |                  | 2410        | 1880      |              | ug/Kg | ✖ | 78   | 68 - 120     |
| Phenanthrene         | 16            | J                | 2410        | 1830      |              | ug/Kg | ✖ | 75   | 74 - 120     |
| Pyrene               | 23            | J                | 2410        | 1800      |              | ug/Kg | ✖ | 74   | 70 - 120     |

| Surrogate               | MS %Recovery | MS Qualifier | Limits   |
|-------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr) | 74           |              | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 64           |              | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 78           |              | 45 - 108 |

Lab Sample ID: 410-51060-12 MSD

Matrix: Solid

Analysis Batch: 161049

Client Sample ID: Pipe 64 (2)

Prep Type: Total/NA

Prep Batch: 160489

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Anthracene           | ND            |                  | 2410        | 1810       |               | ug/Kg | ✖ | 75   | 75 - 120     | 1   | 30    |
| Benzo[a]anthracene   | 15            | J                | 2410        | 1780       |               | ug/Kg | ✖ | 73   | 73 - 120     | 2   | 30    |
| Benzo[a]pyrene       | 15            | J                | 2410        | 1710       | FL            | ug/Kg | ✖ | 71   | 80 - 123     | 3   | 30    |
| Benzo[b]fluoranthene | 20            | J                | 2410        | 1510       | FL            | ug/Kg | ✖ | 62   | 63 - 120     | 1   | 30    |
| Benzo[g,h,i]perylene | 11            | J                | 2410        | 1690       | FL            | ug/Kg | ✖ | 70   | 77 - 120     | 3   | 30    |
| Chrysene             | 15            | J                | 2410        | 1690       |               | ug/Kg | ✖ | 70   | 66 - 120     | 3   | 30    |
| Fluorene             | ND            |                  | 2410        | 1830       |               | ug/Kg | ✖ | 76   | 68 - 120     | 3   | 30    |
| Phenanthrene         | 16            | J                | 2410        | 1790       |               | ug/Kg | ✖ | 74   | 74 - 120     | 2   | 30    |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-51060-12 MSD

Matrix: Solid

Analysis Batch: 161049

Client Sample ID: Pipe 64 (2)

Prep Type: Total/NA

Prep Batch: 160489

| Analyte                 | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Pyrene                  | 23            | J                | 2410        | 1740       |               | ug/Kg | ✱ | 71   | 70 - 120     | 3   | 30        |
| Surrogate               | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| 2-Fluorobiphenyl (Surr) | 73            |                  | 39 - 100    |            |               |       |   |      |              |     |           |
| Nitrobenzene-d5 (Surr)  | 60            |                  | 32 - 97     |            |               |       |   |      |              |     |           |
| p-Terphenyl-d14 (Surr)  | 74            |                  | 45 - 108    |            |               |       |   |      |              |     |           |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-160260/1-A

Matrix: Solid

Analysis Batch: 161428

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160260

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 08/13/21 12:16 | 08/17/21 12:51 | 1       |

Lab Sample ID: LCS 410-160260/2-A

Matrix: Solid

Analysis Batch: 161428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160260

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.51       | FL            | mg/Kg |   | 110  | 80 - 120     |

Lab Sample ID: 410-51060-3 MS

Matrix: Solid

Analysis Batch: 161428

Client Sample ID: DUP-7

Prep Type: Total/NA

Prep Batch: 160260

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Lead    | 24            | FL               | 6.86        | 28.7      | FL           | mg/Kg | ✱ | 67   | 75 - 125     |

Lab Sample ID: 410-51060-3 MSD

Matrix: Solid

Analysis Batch: 161428

Client Sample ID: DUP-7

Prep Type: Total/NA

Prep Batch: 160260

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Lead    | 24            | FL               | 6.25        | 29.4       |               | mg/Kg | ✱ | 85   | 75 - 125     | 3   | 20        |

Lab Sample ID: 410-51060-3 DU

Matrix: Solid

Analysis Batch: 161428

Client Sample ID: DUP-7

Prep Type: Total/NA

Prep Batch: 160260

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Lead    | 24            | FL               | 20.3      |              | mg/Kg | ✱ | 17  | 20        |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## GC/MS VOA

### Analysis Batch: 160096

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-51060-15      | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-160096/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-160096/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-160096/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

### Prep Batch: 160178

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-51060-1      | Pipe 27 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51060-2      | Pipe 29 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51060-3 - DL | DUP-7            | Total/NA  | Solid  | 5035   |            |
| 410-51060-3      | DUP-7            | Total/NA  | Solid  | 5035   |            |
| 410-51060-4      | Pipe 30 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51060-6      | Pipe 44 (2)      | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 160181

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-51060-5   | Pipe 4 (2)       | Total/NA  | Solid  | 5035   |            |
| 410-51060-7   | 1044-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51060-8   | 649-P3 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-51060-9   | 649-P1 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-51060-10  | 649-P2 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-51060-11  | 649-P4 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-51060-12  | Pipe 64 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51060-13  | Pipe 66 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51060-14  | Pipe 65 (2)      | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 160723

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51060-5       | Pipe 4 (2)             | Total/NA  | Solid  | 8260C  | 160181     |
| 410-51060-8       | 649-P3 (3)             | Total/NA  | Solid  | 8260C  | 160181     |
| 410-51060-9       | 649-P1 (3)             | Total/NA  | Solid  | 8260C  | 160181     |
| 410-51060-10      | 649-P2 (3)             | Total/NA  | Solid  | 8260C  | 160181     |
| 410-51060-11      | 649-P4 (3)             | Total/NA  | Solid  | 8260C  | 160181     |
| 410-51060-12      | Pipe 64 (2)            | Total/NA  | Solid  | 8260C  | 160181     |
| 410-51060-13      | Pipe 66 (2)            | Total/NA  | Solid  | 8260C  | 160181     |
| MB 410-160723/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-160723/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-160723/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 161178

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51060-1       | Pipe 27 (2)            | Total/NA  | Solid  | 8260C  | 160178     |
| 410-51060-2       | Pipe 29 (2)            | Total/NA  | Solid  | 8260C  | 160178     |
| 410-51060-4       | Pipe 30 (2)            | Total/NA  | Solid  | 8260C  | 160178     |
| MB 410-161178/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-161178/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-161178/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 161724

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-51060-3   | DUP-7            | Total/NA  | Solid  | 8260C  | 160178     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### GC/MS VOA (Continued)

#### Analysis Batch: 161724 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51060-3 - DL  | DUP-7                  | Total/NA  | Solid  | 8260C  | 160178     |
| 410-51060-6       | Pipe 44 (2)            | Total/NA  | Solid  | 8260C  | 160178     |
| MB 410-161724/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-161724/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-161724/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 161737

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51060-14      | Pipe 65 (2)            | Total/NA  | Solid  | 8260C  | 160181     |
| MB 410-161737/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-161737/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-161737/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 162254

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51060-7       | 1044-P5 (3)            | Total/NA  | Solid  | 8260C  | 160181     |
| MB 410-162254/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-162254/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-162254/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 160489

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51060-1        | Pipe 27 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-2        | Pipe 29 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-3        | DUP-7              | Total/NA  | Solid  | 3546   |            |
| 410-51060-4        | Pipe 30 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-5        | Pipe 4 (2)         | Total/NA  | Solid  | 3546   |            |
| 410-51060-6        | Pipe 44 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-7        | 1044-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-8        | 649-P3 (3)         | Total/NA  | Solid  | 3546   |            |
| 410-51060-9        | 649-P1 (3)         | Total/NA  | Solid  | 3546   |            |
| 410-51060-10       | 649-P2 (3)         | Total/NA  | Solid  | 3546   |            |
| 410-51060-11       | 649-P4 (3)         | Total/NA  | Solid  | 3546   |            |
| 410-51060-12       | Pipe 64 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-13       | Pipe 66 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-14       | Pipe 65 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-160489/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-160489/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-51060-12 MS    | Pipe 64 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51060-12 MSD   | Pipe 64 (2)        | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 160678

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-51060-1   | Pipe 27 (2)      | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-2   | Pipe 29 (2)      | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-3   | DUP-7            | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-4   | Pipe 30 (2)      | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-5   | Pipe 4 (2)       | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-6   | Pipe 44 (2)      | Total/NA  | Solid  | 8270D  | 160489     |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 160678 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51060-7        | 1044-P5 (3)        | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-8        | 649-P3 (3)         | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-9        | 649-P1 (3)         | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-10       | 649-P2 (3)         | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-11       | 649-P4 (3)         | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-12       | Pipe 64 (2)        | Total/NA  | Solid  | 8270D  | 160489     |
| MB 410-160489/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 160489     |
| LCS 410-160489/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 160489     |

### Analysis Batch: 161049

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-51060-13     | Pipe 66 (2)      | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-14     | Pipe 65 (2)      | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-12 MS  | Pipe 64 (2)      | Total/NA  | Solid  | 8270D  | 160489     |
| 410-51060-12 MSD | Pipe 64 (2)      | Total/NA  | Solid  | 8270D  | 160489     |

## Metals

### Prep Batch: 160260

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51060-1        | Pipe 27 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-2        | Pipe 29 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-3        | DUP-7              | Total/NA  | Solid  | 3050B  |            |
| 410-51060-4        | Pipe 30 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-5        | Pipe 4 (2)         | Total/NA  | Solid  | 3050B  |            |
| 410-51060-6        | Pipe 44 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-7        | 1044-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-8        | 649-P3 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-51060-9        | 649-P1 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-51060-10       | 649-P2 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-51060-11       | 649-P4 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-51060-12       | Pipe 64 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-13       | Pipe 66 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51060-14       | Pipe 65 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-160260/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-160260/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-51060-3 MS     | DUP-7              | Total/NA  | Solid  | 3050B  |            |
| 410-51060-3 MSD    | DUP-7              | Total/NA  | Solid  | 3050B  |            |
| 410-51060-3 DU     | DUP-7              | Total/NA  | Solid  | 3050B  |            |

### Analysis Batch: 161428

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-51060-1   | Pipe 27 (2)      | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-2   | Pipe 29 (2)      | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-3   | DUP-7            | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-4   | Pipe 30 (2)      | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-5   | Pipe 4 (2)       | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-6   | Pipe 44 (2)      | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-7   | 1044-P5 (3)      | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-8   | 649-P3 (3)       | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-9   | 649-P1 (3)       | Total/NA  | Solid  | 6010C  | 160260     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Metals (Continued)

#### Analysis Batch: 161428 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51060-10       | 649-P2 (3)         | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-11       | 649-P4 (3)         | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-12       | Pipe 64 (2)        | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-13       | Pipe 66 (2)        | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-14       | Pipe 65 (2)        | Total/NA  | Solid  | 6010C  | 160260     |
| MB 410-160260/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 160260     |
| LCS 410-160260/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-3 MS     | DUP-7              | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-3 MSD    | DUP-7              | Total/NA  | Solid  | 6010C  | 160260     |
| 410-51060-3 DU     | DUP-7              | Total/NA  | Solid  | 6010C  | 160260     |

### General Chemistry

#### Analysis Batch: 160139

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-51060-1   | Pipe 27 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-2   | Pipe 29 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-3   | DUP-7            | Total/NA  | Solid  | Moisture |            |
| 410-51060-4   | Pipe 30 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-5   | Pipe 4 (2)       | Total/NA  | Solid  | Moisture |            |
| 410-51060-6   | Pipe 44 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-7   | 1044-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-8   | 649-P3 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-51060-9   | 649-P1 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-51060-10  | 649-P2 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-51060-11  | 649-P4 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-51060-12  | Pipe 64 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-13  | Pipe 66 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51060-14  | Pipe 65 (2)      | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

**Client Sample ID: Pipe 27 (2)**

**Lab Sample ID: 410-51060-1**

**Date Collected: 08/11/21 13:00**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: Pipe 27 (2)**

**Lab Sample ID: 410-51060-1**

**Date Collected: 08/11/21 13:00**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 72.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160178       | 08/13/21 10:25       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 161178       | 08/17/21 18:15       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 15:48       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:17       | WJM9    | ELLE |

**Client Sample ID: Pipe 29 (2)**

**Lab Sample ID: 410-51060-2**

**Date Collected: 08/11/21 13:15**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: Pipe 29 (2)**

**Lab Sample ID: 410-51060-2**

**Date Collected: 08/11/21 13:15**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 59.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160178       | 08/13/21 10:25       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 161178       | 08/17/21 18:36       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 16:11       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:20       | WJM9    | ELLE |

**Client Sample ID: DUP-7**

**Lab Sample ID: 410-51060-3**

**Date Collected: 08/11/21 00:00**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

**Client Sample ID: DUP-7**

**Lab Sample ID: 410-51060-3**

**Date Collected: 08/11/21 00:00**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 59.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160178       | 08/13/21 10:25       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 161724       | 08/18/21 18:45       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | DL  |                 | 160178       | 08/13/21 10:25       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | DL  | 500             | 161724       | 08/18/21 19:06       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 16:33       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 12:57       | WJM9    | ELLE |

**Client Sample ID: Pipe 30 (2)**

**Lab Sample ID: 410-51060-4**

**Date Collected: 08/11/21 13:40**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: Pipe 30 (2)**

**Lab Sample ID: 410-51060-4**

**Date Collected: 08/11/21 13:40**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 54.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160178       | 08/13/21 10:25       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 161178       | 08/17/21 19:18       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 16:56       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:29       | WJM9    | ELLE |

**Client Sample ID: Pipe 4 (2)**

**Lab Sample ID: 410-51060-5**

**Date Collected: 08/11/21 13:55**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: Pipe 4 (2)**

**Lab Sample ID: 410-51060-5**

**Date Collected: 08/11/21 13:55**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 90.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 19:53       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 17:18       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:32       | WJM9    | ELLE |

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# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

**Client Sample ID: Pipe 44 (2)**

**Lab Sample ID: 410-51060-6**

**Date Collected: 08/11/21 14:40**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: Pipe 44 (2)**

**Lab Sample ID: 410-51060-6**

**Date Collected: 08/11/21 14:40**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 53.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160178       | 08/13/21 10:25       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 161724       | 08/18/21 19:26       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 17:40       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 14:07       | WJM9    | ELLE |

**Client Sample ID: 1044-P5 (3)**

**Lab Sample ID: 410-51060-7**

**Date Collected: 08/12/21 09:00**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: 1044-P5 (3)**

**Lab Sample ID: 410-51060-7**

**Date Collected: 08/12/21 09:00**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 69.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 162254       | 08/19/21 14:46       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 18:03       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:45       | WJM9    | ELLE |

**Client Sample ID: 649-P3 (3)**

**Lab Sample ID: 410-51060-8**

**Date Collected: 08/12/21 09:30**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

**Client Sample ID: 649-P3 (3)**

**Lab Sample ID: 410-51060-8**

**Date Collected: 08/12/21 09:30**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 74.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 16:48       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 18:25       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:42       | WJM9    | ELLE |

**Client Sample ID: 649-P1 (3)**

**Lab Sample ID: 410-51060-9**

**Date Collected: 08/12/21 09:50**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: 649-P1 (3)**

**Lab Sample ID: 410-51060-9**

**Date Collected: 08/12/21 09:50**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 63.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 20:16       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 18:48       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:39       | WJM9    | ELLE |

**Client Sample ID: 649-P2 (3)**

**Lab Sample ID: 410-51060-10**

**Date Collected: 08/12/21 10:05**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: 649-P2 (3)**

**Lab Sample ID: 410-51060-10**

**Date Collected: 08/12/21 10:05**

**Matrix: Solid**

**Date Received: 08/12/21 17:42**

**Percent Solids: 79.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 20:39       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 19:10       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:36       | WJM9    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

**Client Sample ID: 649-P4 (3)**

**Lab Sample ID: 410-51060-11**

Date Collected: 08/12/21 10:30

Matrix: Solid

Date Received: 08/12/21 17:42

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: 649-P4 (3)**

**Lab Sample ID: 410-51060-11**

Date Collected: 08/12/21 10:30

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 75.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 17:57       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 19:33       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:58       | WJM9    | ELLE |

**Client Sample ID: Pipe 64 (2)**

**Lab Sample ID: 410-51060-12**

Date Collected: 08/12/21 10:45

Matrix: Solid

Date Received: 08/12/21 17:42

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

**Client Sample ID: Pipe 64 (2)**

**Lab Sample ID: 410-51060-12**

Date Collected: 08/12/21 10:45

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 68.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 21:02       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 160678       | 08/16/21 19:55       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:55       | WJM9    | ELLE |

**Client Sample ID: Pipe 66 (2)**

**Lab Sample ID: 410-51060-13**

Date Collected: 08/12/21 11:10

Matrix: Solid

Date Received: 08/12/21 17:42

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

## Client Sample ID: Pipe 66 (2)

Lab Sample ID: 410-51060-13

Date Collected: 08/12/21 11:10

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 68.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 160723       | 08/16/21 21:25       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 161049       | 08/17/21 00:40       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:52       | WJM9    | ELLE |

## Client Sample ID: Pipe 65 (2)

Lab Sample ID: 410-51060-14

Date Collected: 08/12/21 11:20

Matrix: Solid

Date Received: 08/12/21 17:42

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160139       | 08/13/21 09:24       | UVJN    | ELLE |

## Client Sample ID: Pipe 65 (2)

Lab Sample ID: 410-51060-14

Date Collected: 08/12/21 11:20

Matrix: Solid

Date Received: 08/12/21 17:42

Percent Solids: 74.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160181       | 08/13/21 10:27       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 161737       | 08/18/21 18:37       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 160489       | 08/14/21 08:45       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 161049       | 08/17/21 01:02       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160260       | 08/13/21 12:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 161428       | 08/17/21 13:49       | WJM9    | ELLE |

## Client Sample ID: Trip Blank

Lab Sample ID: 410-51060-15

Date Collected: 08/12/21 00:00

Matrix: Water

Date Received: 08/12/21 17:42

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 160096       | 08/13/21 11:24       | UKAD    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51060-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-51060-1   | Pipe 27 (2)      | Solid  | 08/11/21 13:00 | 08/12/21 17:42 |
| 410-51060-2   | Pipe 29 (2)      | Solid  | 08/11/21 13:15 | 08/12/21 17:42 |
| 410-51060-3   | DUP-7            | Solid  | 08/11/21 00:00 | 08/12/21 17:42 |
| 410-51060-4   | Pipe 30 (2)      | Solid  | 08/11/21 13:40 | 08/12/21 17:42 |
| 410-51060-5   | Pipe 4 (2)       | Solid  | 08/11/21 13:55 | 08/12/21 17:42 |
| 410-51060-6   | Pipe 44 (2)      | Solid  | 08/11/21 14:40 | 08/12/21 17:42 |
| 410-51060-7   | 1044-P5 (3)      | Solid  | 08/12/21 09:00 | 08/12/21 17:42 |
| 410-51060-8   | 649-P3 (3)       | Solid  | 08/12/21 09:30 | 08/12/21 17:42 |
| 410-51060-9   | 649-P1 (3)       | Solid  | 08/12/21 09:50 | 08/12/21 17:42 |
| 410-51060-10  | 649-P2 (3)       | Solid  | 08/12/21 10:05 | 08/12/21 17:42 |
| 410-51060-11  | 649-P4 (3)       | Solid  | 08/12/21 10:30 | 08/12/21 17:42 |
| 410-51060-12  | Pipe 64 (2)      | Solid  | 08/12/21 10:45 | 08/12/21 17:42 |
| 410-51060-13  | Pipe 66 (2)      | Solid  | 08/12/21 11:10 | 08/12/21 17:42 |
| 410-51060-14  | Pipe 65 (2)      | Solid  | 08/12/21 11:20 | 08/12/21 17:42 |
| 410-51060-15  | Trip Blank       | Water  | 08/12/21 00:00 | 08/12/21 17:42 |

## Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike

Lancaster, PA 17601

Phone: 717-656-2300 Fax: 717-656-2681

## Chain of Custody Record

Environment Testing  
America

|  |  |  |             |  |   |  |           |                                 |  |
|--|--|--|-------------|--|---|--|-----------|---------------------------------|--|
| <b>Client Information</b>  |  | Sampler: <u>IA/DH/TM</u>   |             | Lab PM: <u>Carter, Amek A</u>  |   | 410-51060 Chain of Custody   |           | COC No: <u>410-31049-9562 5</u> |  |
| Client Contact: <u>Mark Schaeffer</u>  |  | Phone: <u>484 467 3657</u>   |             | E-Mail: <u>Loran.Carter@eurofinset.com</u>   |   | State of Origin: <u>PA</u>   |           | Page: <u>Page 5 of 8</u>        |  |
| Company: <u>Stantec Consulting Corp</u>  |  | PWSID  |             | Analysis Requested   |   |  |           | Job #                           |  |
| Address: <u>1060 Andrew Drive Suite 140</u>  |  | Due Date Requested:  |             | Field Filtered Sample (Yes or No)<br>Perform Methods (Yes or No)<br>8260C - PA Combo of Leaded and Unleaded Gasoline<br>6010C, 8270D, Moisture<br>8260C_UST - PA Combo of Leaded and Unleaded Gasoline<br>Total Number of Containers |   | Preservation Codes:<br>A - HCL      M - Hexane<br>B - NaOH      N - None<br>C - Zn Acetate      O - AsNaO2<br>D - Nitric Acid      P - Na2O4S<br>E - NaHSO4      Q - Na2SO3<br>F - MeOH      R - Na2S2O3<br>G - Amchlor      S - H2SO4<br>H - Ascorbic Acid      T - TSP Dodecahydrate<br>I - Ice      U - Acetone<br>J - DI Water      V - MCAA<br>K - EDTA      W - pH 4-5<br>L - EDA      Z - other (specify) |           | Other:                          |  |
| City: <u>West Chester</u>  |  | TAT Requested (days): <u>5 day</u>   |             |  |   |  |           |                                 |  |
| State, Zip: <u>PA, 19380</u>   |  | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No |             |  |   |  |           |                                 |  |
| Phone:   |  | PO #   |             |  |   |  |           |                                 |  |
| Email: <u>mark.schaeffer@stantec.com</u>   |  | Purchase Order Requested   |             |  |   |  |           |                                 |  |
| Project Name: <u>PBF Logistics</u>   |  | Project #: <u>41007459</u>   |             |  |   |  |           |                                 |  |
| Site: <u>51st Street Terminal</u>  |  | SSOW#:   |             |  |   |  |           |                                 |  |
| <b>Sample Identification</b>   |  | Sample Date  | Sample Time | Sample Type<br>(C=comp, G=grab)  | Matrix<br>(W=water, S=solid, O=waste/oil, BT=tissue, A=air)   |  |           |                                 |  |
|  |  |  |             | Preservation Code:   |   |  |           |                                 |  |
| <u>Pipe 27 (2)</u>   |  | <u>8/11/21</u>   | <u>1300</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>Pipe 29 (2)</u>   |  | <u>8/11/21</u>   | <u>1315</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>DWP-7</u>   |  | <u>8/11/21</u>   | <u>—</u>    | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>Pipe 30 (2)</u>   |  | <u>8/11/21</u>   | <u>1340</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>Pipe 4 (2)</u>  |  | <u>8/11/21</u>   | <u>1355</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>Pipe 44 (2)</u>   |  | <u>8/11/21</u>   | <u>1440</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>1044 - P5 (3)</u>   |  | <u>8/12/21</u>   | <u>0900</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>649 - P3 (3)</u>  |  | <u>8/12/21</u>   | <u>0930</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>649 - P1 (3)</u>  |  | <u>8/12/21</u>   | <u>0950</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>649 - P2 (3)</u>  |  | <u>8/12/21</u>   | <u>1005</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <u>649 - P4 (3)</u>  |  | <u>8/12/21</u>   | <u>1030</u> | <u>G</u>   | <u>Solid</u>  |  | <u>XX</u> |                                 |  |
| <b>Possible Hazard Identification</b>  |  |  |             |  | <b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>   |  |           |                                 |  |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |  |             |  | <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |           |                                 |  |
| Deliverable Requested: I, II, III, IV, Other (specify)   |  |  |             |  | Special Instructions/QC Requirements:   |  |           |                                 |  |
| Empty Kit Relinquished by  |  | Date   |             | Time   |   | Method of Shipment   |           |                                 |  |
| Relinquished by: <u>Picene</u>   |  | Date/Time: <u>8/12/21 1135</u>   |             | Company:   |   | Received by: <u>Picene</u>   |           | Date/Time: <u>8/12/21 11:35</u> |  |
| Relinquished by: <u>Picene</u>   |  | Date/Time: <u>8/12/21 17</u>   |             | Company:   |   | Received by: <u>Picene</u>   |           | Date/Time: <u>8/12/21 1742</u>  |  |
| Relinquished by: <u>Picene</u>   |  | Date/Time: <u>8/12/21 1742</u>   |             | Company: <u>EUCE</u>   |   | Received by: <u>Picene</u>   |           | Date/Time: <u>8-12-21 1742</u>  |  |
| Custody Seals Intact:<br><input type="checkbox"/> Yes <input type="checkbox"/> No  |  | Custody Seal No:   |             |  |   | Cooler Temperature(s) *C and Other Remarks: <u>3.1°C</u>   |           |                                 |  |

**Environment Testing  
America**

the

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-51060-1

**Login Number: 51060**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

**List Number: 1**

**Creator: Knoedler, Christine M**

| Question  | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.  | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.   | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.   | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.  | N/A    |         |
| COC is present.   | True   |         |
| COC is filled out in ink and legible.   | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             |        |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.  | True   |         |
| Containers are not broken or leaking.   | True   |         |
| Sample collection date/times are provided.  | True   |         |
| Appropriate sample containers are used.   | True   |         |
| Sample bottles are completely filled.   | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.  | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?   | True   |         |
| Sample Preservation Verified.   | N/A    |         |
| Residual Chlorine Checked.  | N/A    |         |
| Sample custody seals are intact.  | N/A    |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-51318-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
8/27/2021 10:18:12 AM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

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results through

**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
|----|
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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter  
Project Manager  
8/27/2021 10:18:12 AM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *3        | ISTD response or retention time outside acceptable limits.   |
| ^c        | CCV Recovery is outside acceptance limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Job ID: 410-51318-1

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-51318-1

#### Receipt

The samples were received on 8/13/2021 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

#### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Pipe 62 (2) (410-51318-2), 1044-P1 (3) (410-51318-3) and 649-P5 (3) (410-51318-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: 2045-P4 (3) (410-51318-8). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) analyzed on 410-162756 is compliant under 8260C/D method criteria for Isopropylbenzene. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-162756 recovered outside acceptance criteria, low biased, for 1,3,5-Trimethylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: 1044-P3 (3) (410-51318-4). The sample(s) was re-analyzed and ISTD response was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Client Sample ID: Pipe 63 (2)

Lab Sample ID: 410-51318-1

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 5.8    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 8.4    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 8.2    | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 19     | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 23     |           | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 13     | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 19     | J         | 23  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 13     | J         | 23  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 70     |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 62 (2)

Lab Sample ID: 410-51318-2

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Pyrene  | 39     |           | 22  | 4.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead    | 29     |           | 1.8 | 0.72 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1044-P1 (3)

Lab Sample ID: 410-51318-3

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 9.5    | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 18     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 18     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 25     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 17     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 20     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 28     |           | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 25     |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 90     |           | 1.7 | 0.68 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1044-P3 (3)

Lab Sample ID: 410-51318-4

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 50     |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 180    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 200    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 330    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 220    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 250    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 160    |           | 25  | 6.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 320    |           | 25  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 810    |           | 1.9 | 0.76 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 649-P5 (3)

Lab Sample ID: 410-51318-5

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 10     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 11     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 20     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 15     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 15     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 17     | J         | 21  | 5.0  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 16     | J         | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 270    |           | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Client Sample ID: 1044-P2 (3)

### Lab Sample ID: 410-51318-6

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Toluene              | 1.5    | J         | 7.1 | 0.85 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Benzene              | 3.6    | J         | 7.1 | 0.71 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Anthracene           | 28     |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 180    |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 200    |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 230    |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 160    |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene             | 180    |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Fluorene             | 8.5    | J         | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Phenanthrene         | 110    |           | 23  | 5.5  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene               | 200    |           | 23  | 4.6  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                 | 380    |           | 2.0 | 0.81 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

### Client Sample ID: 2045-P2 (3)

### Lab Sample ID: 410-51318-7

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Toluene                | 3.3    | J         | 7.0 | 0.84 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Benzene                | 1.4    | J         | 7.0 | 0.70 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.2    | J         | 7.0 | 0.70 | ug/Kg | 1   | ✱   |   | 8260C  | Total/NA  |
| Anthracene             | 8.7    | J         | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 8.5    | J         | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 13     | J         | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 21     | J         | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 13     | J         | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene               | 19     | J         | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Fluorene               | 30     |           | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Phenanthrene           | 64     |           | 24  | 5.8  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene                 | 30     |           | 24  | 4.9  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                   | 29     |           | 2.2 | 0.87 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

### Client Sample ID: 2045-P4 (3)

### Lab Sample ID: 410-51318-8

| Analyte                | Result | Qualifier | RL   | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|------|-------|-----|-----|---|--------|-----------|
| Ethylbenzene           | 66     | J         | 690  | 55   | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 230    | J         | 690  | 69   | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| Xylenes, Total         | 370    | J         | 1400 | 190  | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 520    | J         | 690  | 69   | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| Benzo[a]anthracene     | 9.9    | J         | 30   | 6.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 9.6    | J         | 30   | 6.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 8.3    | J         | 30   | 6.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Chrysene               | 33     |           | 30   | 6.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene                 | 410    |           | 30   | 6.1  | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Lead                   | 75     |           | 2.2  | 0.88 | mg/Kg | 1   | ✱   |   | 6010C  | Total/NA  |

### Client Sample ID: 2045-P5 (3)

### Lab Sample ID: 410-51318-9

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | Dil | Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|-----|-------|-----|-----|---|--------|-----------|
| Ethylbenzene           | 670    |           | 590  | 47  | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 15000  |           | 590  | 59  | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| Xylenes, Total         | 6800   |           | 1200 | 170 | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| Naphthalene            | 13000  |           | 590  | 240 | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |
| Isopropylbenzene       | 1500   |           | 590  | 47  | ug/Kg | 50  | ✱   |   | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Client Sample ID: 2045-P5 (3) (Continued)

Lab Sample ID: 410-51318-9

| Analyte                     | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene - DL | 33000  |           | 5900 | 590  | ug/Kg | 500     | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene          | 11     | J         | 28   | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 8.0    | J         | 28   | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 37     |           | 28   | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 520    |           | 28   | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 5000   |           | 28   | 6.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 470    |           | 28   | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 210    |           | 1.9  | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 43 (2)

Lab Sample ID: 410-51318-10

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 7.6    | J         | 8.9 | 0.89 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 15     |           | 8.9 | 0.89 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 17     | J         | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 40     | J         | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 37     | J         | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 57     |           | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 39     | J         | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 51     |           | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 87     |           | 49  | 12   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 72     |           | 49  | 9.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 60     |           | 1.8 | 0.71 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 42 (2)

Lab Sample ID: 410-51318-11

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 41     |           | 9.1 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 0.96   | J         | 9.1 | 0.91 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 1.2    | J         | 9.1 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 330    |           | 18  | 2.5  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.4    | J         | 9.1 | 0.91 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 1.4    | J         | 9.1 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 31     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 45     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 41     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 66     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 41     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 80     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 120    |           | 26  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 72     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 110    |           | 2.1 | 0.82 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Pipe 41 (2)

Lab Sample ID: 410-51318-12

| Analyte              | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Anthracene           | 22     | J         | 29 | 5.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 22     | J         | 29 | 5.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 25     | J         | 29 | 5.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 46     |           | 29 | 5.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 25     | J         | 29 | 5.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 46     |           | 29 | 5.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Client Sample ID: Pipe 41 (2) (Continued)

Lab Sample ID: 410-51318-12

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Fluorene     | 8.6    | J         | 29  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene | 67     |           | 29  | 6.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 63     |           | 29  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 120    |           | 1.9 | 0.77 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Trip Blank

Lab Sample ID: 410-51318-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: Pipe 63 (2)

Lab Sample ID: 410-51318-1

Date Collected: 08/12/21 11:40

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 72.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| 1,2-Dichloroethane          | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Toluene                     | ND     |           | 10 | 1.2  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Xylenes, Total              | ND     |           | 20 | 2.8  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Methyl tertiary butyl ether | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Benzene                     | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Naphthalene                 | ND     |           | 10 | 4.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 10 | 1.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Isopropylbenzene            | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| 1,2-Dibromoethane           | ND     |           | 10 | 0.80 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:32 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/16/21 09:56 | 08/22/21 20:32 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/16/21 09:56 | 08/22/21 20:32 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 5.8    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Benzo[a]anthracene   | 8.4    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Benzo[a]pyrene       | 8.2    | J         | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Benzo[b]fluoranthene | 19     | J         | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Benzo[g,h,i]perylene | 23     |           | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Chrysene             | 13     | J         | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Fluorene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Phenanthrene         | 19     | J         | 23 | 5.4 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Pyrene               | 13     | J         | 23 | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 17:38 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| Nitrobenzene-d5 (Surr)  | 62        |           | 32 - 97  | 08/18/21 10:11 | 08/21/21 17:38 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 | 08/18/21 10:11 | 08/21/21 17:38 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 70     |           | 1.6 | 0.64 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 13:59 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.1   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 08:55 | 1       |

Client Sample ID: Pipe 62 (2)

Lab Sample ID: 410-51318-2

Date Collected: 08/12/21 11:50

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 73.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 580 | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| 1,2-Dichloroethane | ND     |           | 580 | 70  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: Pipe 62 (2)

Lab Sample ID: 410-51318-2

Date Collected: 08/12/21 11:50

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 73.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 580      | 58  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Toluene                      | ND        |           | 580      | 70  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Xylenes, Total               | ND        |           | 1200     | 160 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 580      | 58  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Benzene                      | ND        |           | 580      | 58  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Naphthalene                  | ND        |           | 580      | 230 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| 1,2,4-Trimethylbenzene       | ND        |           | 580      | 58  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Isopropylbenzene             | ND        |           | 580      | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| 1,2-Dibromoethane            | ND        |           | 580      | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 77        |           | 54 - 135 |     |       |   | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| 4-Bromofluorobenzene (Surr)  | 71        |           | 50 - 131 |     |       |   | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Dibromofluoromethane (Surr)  | 73        |           | 50 - 141 |     |       |   | 08/16/21 10:50 | 08/23/21 16:47 | 50      |
| Toluene-d8 (Surr)            | 70        |           | 52 - 141 |     |       |   | 08/16/21 10:50 | 08/23/21 16:47 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Benzo[a]anthracene      | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Benzo[a]pyrene          | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Chrysene                | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Fluorene                | ND        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Phenanthrene            | ND        |           | 22       | 5.4 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Pyrene                  | 39        |           | 22       | 4.5 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 70        |           | 39 - 100 |     |       |   | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| Nitrobenzene-d5 (Surr)  | 60        |           | 32 - 97  |     |       |   | 08/18/21 10:11 | 08/21/21 18:02 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 |     |       |   | 08/18/21 10:11 | 08/21/21 18:02 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 29     |           | 1.8 | 0.72 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:02 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.5   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 08:55 | 1       |

Client Sample ID: 1044-P1 (3)

Lab Sample ID: 410-51318-3

Date Collected: 08/12/21 12:00

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 78.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 450 | 36  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| 1,2-Dichloroethane     | ND     |           | 450 | 53  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| 1,3,5-Trimethylbenzene | ND     |           | 450 | 45  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Toluene                | ND     |           | 450 | 53  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 1044-P1 (3)

Lab Sample ID: 410-51318-3

Date Collected: 08/12/21 12:00

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 78.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 890 | 120 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Methyl tertiary butyl ether | ND     |           | 450 | 45  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Benzene                     | ND     |           | 450 | 45  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Naphthalene                 | ND     |           | 450 | 180 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 450 | 45  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Isopropylbenzene            | ND     |           | 450 | 36  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| 1,2-Dibromoethane           | ND     |           | 450 | 36  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:09 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 71        |           | 54 - 135 | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| 4-Bromofluorobenzene (Surr)  | 60        |           | 50 - 131 | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Dibromofluoromethane (Surr)  | 69        |           | 50 - 141 | 08/16/21 10:50 | 08/23/21 17:09 | 50      |
| Toluene-d8 (Surr)            | 65        |           | 52 - 141 | 08/16/21 10:50 | 08/23/21 17:09 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 9.5    | J         | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Benzo[a]anthracene   | 18     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Benzo[a]pyrene       | 18     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Benzo[b]fluoranthene | 25     |           | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Benzo[g,h,i]perylene | 17     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Chrysene             | 20     | J         | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Fluorene             | ND     |           | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Phenanthrene         | 28     |           | 21 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Pyrene               | 25     |           | 21 | 4.2 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:25 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/18/21 10:11 | 08/21/21 18:25 | 1       |
| p-Terphenyl-d14 (Surr)  | 88        |           | 45 - 108 | 08/18/21 10:11 | 08/21/21 18:25 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 90     |           | 1.7 | 0.68 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:06 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.4   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 08:55 | 1       |

Client Sample ID: 1044-P3 (3)

Lab Sample ID: 410-51318-4

Date Collected: 08/12/21 12:30

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 65.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.5 | 0.90 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | ^c *3     | 7.5 | 0.75 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Toluene                     | ND     |           | 7.5 | 0.90 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.1  | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.5 | 0.75 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 1044-P3 (3)

Lab Sample ID: 410-51318-4

Date Collected: 08/12/21 12:30

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 65.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 7.5 | 0.75 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Naphthalene            | ND     | *3        | 7.5 | 3.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| 1,2,4-Trimethylbenzene | ND     | *3        | 7.5 | 0.75 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Isopropylbenzene       | ND     | ^c        | 7.5 | 0.60 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| 1,2-Dibromoethane      | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 15:18 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 115       |           | 54 - 135 | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 78        |           | 50 - 131 | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/16/21 09:56 | 08/20/21 15:18 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/16/21 09:56 | 08/20/21 15:18 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 50     |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Benzo[a]anthracene   | 180    |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Benzo[a]pyrene       | 200    |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Benzo[b]fluoranthene | 330    |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Benzo[g,h,i]perylene | 220    |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Chrysene             | 250    |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Fluorene             | ND     |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Phenanthrene         | 160    |           | 25 | 6.1 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Pyrene               | 320    |           | 25 | 5.0 | ug/Kg | ✱ | 08/18/21 10:11 | 08/21/21 18:48 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  | 08/18/21 10:11 | 08/21/21 18:48 | 1       |
| p-Terphenyl-d14 (Surr)  | 82        |           | 45 - 108 | 08/18/21 10:11 | 08/21/21 18:48 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 810    |           | 1.9 | 0.76 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:09 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 34.8   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 08:55 | 1       |

Client Sample ID: 649-P5 (3)

Lab Sample ID: 410-51318-5

Date Collected: 08/13/21 09:20

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 79.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 460 | 37  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| 1,2-Dichloroethane          | ND     |           | 460 | 55  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Toluene                     | ND     |           | 460 | 55  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Xylenes, Total              | ND     |           | 910 | 130 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Methyl tertiary butyl ether | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Benzene                     | ND     |           | 460 | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Naphthalene                 | ND     |           | 460 | 180 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 649-P5 (3)

Lab Sample ID: 410-51318-5

Date Collected: 08/13/21 09:20

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 79.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | ND        |           | 460      | 46  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Isopropylbenzene             | ND        |           | 460      | 37  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| 1,2-Dibromoethane            | ND        |           | 460      | 37  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 66        |           | 54 - 135 |     |       |   | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| 4-Bromofluorobenzene (Surr)  | 55        |           | 50 - 131 |     |       |   | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Dibromofluoromethane (Surr)  | 63        |           | 50 - 141 |     |       |   | 08/16/21 10:50 | 08/23/21 17:32 | 50      |
| Toluene-d8 (Surr)            | 59        |           | 52 - 141 |     |       |   | 08/16/21 10:50 | 08/23/21 17:32 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Benzo[a]anthracene      | 10        | J         | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Benzo[a]pyrene          | 11        | J         | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Benzo[b]fluoranthene    | 20        | J         | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Benzo[g,h,i]perylene    | 15        | J         | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Chrysene                | 15        | J         | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Fluorene                | ND        |           | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Phenanthrene            | 17        | J         | 21       | 5.0 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Pyrene                  | 16        | J         | 21       | 4.2 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 71        |           | 39 - 100 |     |       |   | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| Nitrobenzene-d5 (Surr)  | 56        |           | 32 - 97  |     |       |   | 08/20/21 17:42 | 08/23/21 15:40 | 1       |
| p-Terphenyl-d14 (Surr)  | 68        |           | 45 - 108 |     |       |   | 08/20/21 17:42 | 08/23/21 15:40 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 270    |           | 1.5 | 0.59 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:28 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 20.8   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 09:32 | 1       |

Client Sample ID: 1044-P2 (3)

Lab Sample ID: 410-51318-6

Date Collected: 08/13/21 09:00

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 72.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.1 | 0.57 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.1 | 0.85 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.1 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Toluene                     | 1.5    | J         | 7.1 | 0.85 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Xylenes, Total              | ND     |           | 14  | 2.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.1 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Benzene                     | 3.6    | J         | 7.1 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Naphthalene                 | ND     |           | 7.1 | 2.8  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.1 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Isopropylbenzene            | ND     |           | 7.1 | 0.57 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 1044-P2 (3)

Lab Sample ID: 410-51318-6

Date Collected: 08/13/21 09:00

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 72.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 7.1      | 0.57 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 |      |       |   | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 |      |       |   | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |      |       |   | 08/16/21 09:56 | 08/22/21 21:40 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 |      |       |   | 08/16/21 09:56 | 08/22/21 21:40 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 28        |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Benzo[a]anthracene      | 180       |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Benzo[a]pyrene          | 200       |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Benzo[b]fluoranthene    | 230       |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Benzo[g,h,i]perylene    | 160       |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Chrysene                | 180       |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Fluorene                | 8.5 J     |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Phenanthrene            | 110       |           | 23       | 5.5 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Pyrene                  | 200       |           | 23       | 4.6 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 |     |       |   | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| Nitrobenzene-d5 (Surr)  | 65        |           | 32 - 97  |     |       |   | 08/20/21 17:42 | 08/23/21 16:02 | 1       |
| p-Terphenyl-d14 (Surr)  | 90        |           | 45 - 108 |     |       |   | 08/20/21 17:42 | 08/23/21 16:02 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 380    |           | 2.0 | 0.81 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.0   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 09:32 | 1       |

Client Sample ID: 2045-P2 (3)

Lab Sample ID: 410-51318-7

Date Collected: 08/13/21 09:50

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 67.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.0 | 0.84 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| 1,3,5-Trimethylbenzene      | ND ^c  |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Toluene                     | 3.3 J  |           | 7.0 | 0.84 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Xylenes, Total              | ND     |           | 14  | 2.0  | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Benzene                     | 1.4 J  |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Naphthalene                 | ND     |           | 7.0 | 2.8  | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| 1,2,4-Trimethylbenzene      | 1.2 J  |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Isopropylbenzene            | ND ^c  |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/16/21 09:56 | 08/20/21 19:09 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 2045-P2 (3)

Lab Sample ID: 410-51318-7

Date Collected: 08/13/21 09:50

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 67.9

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 54 - 135 | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/16/21 09:56 | 08/20/21 19:09 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 | 08/16/21 09:56 | 08/20/21 19:09 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 8.7    | J         | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Benzo[a]anthracene   | 8.5    | J         | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Benzo[a]pyrene       | 13     | J         | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Benzo[b]fluoranthene | 21     | J         | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Benzo[g,h,i]perylene | 13     | J         | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Chrysene             | 19     | J         | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Fluorene             | 30     |           | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Phenanthrene         | 64     |           | 24 | 5.8 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Pyrene               | 30     |           | 24 | 4.9 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:24 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 89        |           | 39 - 100 | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| Nitrobenzene-d5 (Surr)  | 71        |           | 32 - 97  | 08/20/21 17:42 | 08/23/21 16:24 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 08/20/21 17:42 | 08/23/21 16:24 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 29     |           | 2.2 | 0.87 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:35 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 32.1   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 09:32 | 1       |

Client Sample ID: 2045-P4 (3)

Lab Sample ID: 410-51318-8

Date Collected: 08/13/21 10:15

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 54.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 66     | J         | 690  | 55  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| 1,2-Dichloroethane          | ND     |           | 690  | 82  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| 1,3,5-Trimethylbenzene      | 230    | J         | 690  | 69  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Toluene                     | ND     |           | 690  | 82  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Xylenes, Total              | 370    | J         | 1400 | 190 | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Methyl tertiary butyl ether | ND     |           | 690  | 69  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Benzene                     | ND     |           | 690  | 69  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Naphthalene                 | ND     |           | 690  | 270 | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| 1,2,4-Trimethylbenzene      | 520    | J         | 690  | 69  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Isopropylbenzene            | ND     |           | 690  | 55  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| 1,2-Dibromoethane           | ND     |           | 690  | 55  | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 13:55 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 84        |           | 54 - 135 | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| 4-Bromofluorobenzene (Surr)  | 77        |           | 50 - 131 | 08/16/21 10:50 | 08/24/21 13:55 | 50      |
| Dibromofluoromethane (Surr)  | 51        |           | 50 - 141 | 08/16/21 10:50 | 08/24/21 13:55 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 2045-P4 (3)

Lab Sample ID: 410-51318-8

Date Collected: 08/13/21 10:15

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 54.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 73        |           | 52 - 141 | 08/16/21 10:50 | 08/24/21 13:55 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Benzo[a]anthracene   | 9.9    | J         | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Benzo[a]pyrene       | ND     |           | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Benzo[b]fluoranthene | 9.6    | J         | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Benzo[g,h,i]perylene | 8.3    | J         | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Chrysene             | 33     |           | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Fluorene             | ND     |           | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Phenanthrene         | ND     |           | 30 | 7.3 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Pyrene               | 410    |           | 30 | 6.1 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 16:46 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 68        |           | 39 - 100 | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  | 08/20/21 17:42 | 08/23/21 16:46 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 08/20/21 17:42 | 08/23/21 16:46 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 75     |           | 2.2 | 0.88 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:38 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 45.3   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 09:32 | 1       |

Client Sample ID: 2045-P5 (3)

Lab Sample ID: 410-51318-9

Date Collected: 08/13/21 10:40

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 58.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 670    |           | 590  | 47  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| 1,2-Dichloroethane          | ND     |           | 590  | 71  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| 1,3,5-Trimethylbenzene      | 15000  |           | 590  | 59  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Toluene                     | ND     |           | 590  | 71  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Xylenes, Total              | 6800   |           | 1200 | 170 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Methyl tertiary butyl ether | ND     |           | 590  | 59  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Benzene                     | ND     |           | 590  | 59  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Naphthalene                 | 13000  |           | 590  | 240 | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Isopropylbenzene            | 1500   |           | 590  | 47  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| 1,2-Dibromoethane           | ND     |           | 590  | 47  | ug/Kg | ✱ | 08/16/21 10:50 | 08/23/21 18:16 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 77        |           | 54 - 135 | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| 4-Bromofluorobenzene (Surr)  | 76        |           | 50 - 131 | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Dibromofluoromethane (Surr)  | 0         | S1-       | 50 - 141 | 08/16/21 10:50 | 08/23/21 18:16 | 50      |
| Toluene-d8 (Surr)            | 72        |           | 52 - 141 | 08/16/21 10:50 | 08/23/21 18:16 | 50      |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: 2045-P5 (3)

Lab Sample ID: 410-51318-9

Date Collected: 08/13/21 10:40

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 58.1

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 33000     |           | 5900     | 590 | ug/Kg | ✱ | 08/16/21 10:50 | 08/24/21 14:36 | 500     |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 47        | S1-       | 54 - 135 |     |       |   | 08/16/21 10:50 | 08/24/21 14:36 | 500     |
| 4-Bromofluorobenzene (Surr)  | 70        |           | 50 - 131 |     |       |   | 08/16/21 10:50 | 08/24/21 14:36 | 500     |
| Dibromofluoromethane (Surr)  | 0         | S1-       | 50 - 141 |     |       |   | 08/16/21 10:50 | 08/24/21 14:36 | 500     |
| Toluene-d8 (Surr)            | 43        | S1-       | 52 - 141 |     |       |   | 08/16/21 10:50 | 08/24/21 14:36 | 500     |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Benzo[a]anthracene      | 11        | J         | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Benzo[a]pyrene          | ND        |           | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Benzo[b]fluoranthene    | 8.0       | J         | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Chrysene                | 37        |           | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Fluorene                | 520       |           | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Phenanthrene            | 5000      |           | 28       | 6.8 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Pyrene                  | 470       |           | 28       | 5.7 | ug/Kg | ✱ | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 53        |           | 39 - 100 |     |       |   | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  |     |       |   | 08/20/21 17:42 | 08/23/21 17:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 |     |       |   | 08/20/21 17:42 | 08/23/21 17:08 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 210    |           | 1.9 | 0.78 | mg/Kg | ✱ | 08/16/21 03:44 | 08/16/21 14:42 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 41.9   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 09:32 | 1       |

Client Sample ID: Pipe 43 (2)

Lab Sample ID: 410-51318-10

Date Collected: 08/13/21 11:05

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 60.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| 1,3,5-Trimethylbenzene      | 7.6    | J         | 8.9 | 0.89 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Toluene                     | ND     |           | 8.9 | 1.1  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.5  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Benzene                     | ND     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Naphthalene                 | ND     |           | 8.9 | 3.5  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| 1,2,4-Trimethylbenzene      | 15     |           | 8.9 | 0.89 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Isopropylbenzene            | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.9 | 0.71 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:54 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: Pipe 43 (2)

Lab Sample ID: 410-51318-10

Date Collected: 08/13/21 11:05

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 60.0

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/16/21 09:56 | 08/22/21 20:54 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/16/21 09:56 | 08/22/21 20:54 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 17     | J         | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Benzo[a]anthracene   | 40     | J         | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Benzo[a]pyrene       | 37     | J         | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Benzo[b]fluoranthene | 57     |           | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Benzo[g,h,i]perylene | 39     | J         | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Chrysene             | 51     |           | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Fluorene             | ND     |           | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Phenanthrene         | 87     |           | 49 | 12  | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Pyrene               | 72     |           | 49 | 9.7 | ug/Kg | ✱ | 08/26/21 21:36 | 08/27/21 11:24 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 70        |           | 39 - 100 | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 32 - 97  | 08/26/21 21:36 | 08/27/21 11:24 | 1       |
| p-Terphenyl-d14 (Surr)  | 81        |           | 45 - 108 | 08/26/21 21:36 | 08/27/21 11:24 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 60     |           | 1.8 | 0.71 | mg/Kg | ✱ | 08/16/21 03:51 | 08/18/21 17:29 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 40.0   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 08:55 | 1       |

Client Sample ID: Pipe 42 (2)

Lab Sample ID: 410-51318-11

Date Collected: 08/13/21 11:25

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 64.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 41     |           | 9.1 | 0.73 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.1 | 1.1  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| 1,3,5-Trimethylbenzene      | 0.96   | J         | 9.1 | 0.91 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Toluene                     | 1.2    | J         | 9.1 | 1.1  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Xylenes, Total              | 330    |           | 18  | 2.5  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.1 | 0.91 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Benzene                     | ND     |           | 9.1 | 0.91 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Naphthalene                 | ND     |           | 9.1 | 3.6  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| 1,2,4-Trimethylbenzene      | 1.4    | J         | 9.1 | 0.91 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Isopropylbenzene            | 1.4    | J         | 9.1 | 0.73 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.1 | 0.73 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 20:09 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 54 - 135 | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 | 08/16/21 09:56 | 08/22/21 20:09 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/16/21 09:56 | 08/22/21 20:09 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: Pipe 42 (2)

Lab Sample ID: 410-51318-11

Date Collected: 08/13/21 11:25

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 64.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 95        |           | 52 - 141 | 08/16/21 09:56 | 08/22/21 20:09 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 31     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Benzo[a]anthracene   | 45     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Benzo[a]pyrene       | 41     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Benzo[b]fluoranthene | 66     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Benzo[g,h,i]perylene | 41     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Chrysene             | 80     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Fluorene             | ND     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Phenanthrene         | 120    |           | 26 | 6.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Pyrene               | 72     |           | 26 | 5.2 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:36 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 58        |           | 39 - 100 | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| Nitrobenzene-d5 (Surr)  | 50        |           | 32 - 97  | 08/20/21 17:48 | 08/23/21 18:36 | 1       |
| p-Terphenyl-d14 (Surr)  | 56        |           | 45 - 108 | 08/20/21 17:48 | 08/23/21 18:36 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 110    |           | 2.1 | 0.82 | mg/Kg | ✱ | 08/16/21 03:51 | 08/18/21 17:00 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 35.6   |           | 1.0 | 1.0 | %    |   |          | 08/16/21 08:55 | 1       |

Client Sample ID: Pipe 41 (2)

Lab Sample ID: 410-51318-12

Date Collected: 08/13/21 11:35

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 58.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.1 | 0.65 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.1 | 0.97 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.1 | 0.81 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Toluene                     | ND     |           | 8.1 | 0.97 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.3  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.1 | 0.81 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Benzene                     | ND     |           | 8.1 | 0.81 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Naphthalene                 | ND     |           | 8.1 | 3.2  | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.1 | 0.81 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Isopropylbenzene            | ND     |           | 8.1 | 0.65 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.1 | 0.65 | ug/Kg | ✱ | 08/16/21 09:56 | 08/22/21 18:38 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 08/16/21 09:56 | 08/22/21 18:38 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 08/16/21 09:56 | 08/22/21 18:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: Pipe 41 (2)

Lab Sample ID: 410-51318-12

Date Collected: 08/13/21 11:35

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 58.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 22     | J         | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Benzo[a]anthracene   | 22     | J         | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Benzo[a]pyrene       | 25     | J         | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Benzo[b]fluoranthene | 46     |           | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Benzo[g,h,i]perylene | 25     | J         | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Chrysene             | 46     |           | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Fluorene             | 8.6    | J         | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Phenanthrene         | 67     |           | 29 | 6.9 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Pyrene               | 63     |           | 29 | 5.7 | ug/Kg | ✱ | 08/20/21 17:48 | 08/23/21 18:58 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 43        |           | 39 - 100 | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| Nitrobenzene-d5 (Surr)  | 41        |           | 32 - 97  | 08/20/21 17:48 | 08/23/21 18:58 | 1       |
| p-Terphenyl-d14 (Surr)  | 41        | S1-       | 45 - 108 | 08/20/21 17:48 | 08/23/21 18:58 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 1.9 | 0.77 | mg/Kg | ✱ | 08/16/21 03:51 | 08/18/21 17:25 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 41.8   |           | 1.0 | 1.0 | %    | - |          | 08/16/21 08:55 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-51318-13

Date Collected: 08/13/21 00:00

Matrix: Water

Date Received: 08/13/21 18:00

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:50 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/24/21 12:50 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:50 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/24/21 12:50 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:50 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/24/21 12:50 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/21 12:50 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:50 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/24/21 12:50 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/24/21 12:50 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/24/21 12:50 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95        |           | 80 - 120 |          | 08/24/21 12:50 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 80 - 120 |          | 08/24/21 12:50 | 1       |
| Dibromofluoromethane (Surr)  | 96        |           | 80 - 120 |          | 08/24/21 12:50 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 80 - 120 |          | 08/24/21 12:50 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-51318-1       | Pipe 63 (2)            | 112  | 86              | 106              | 102             |
| 410-51318-2       | Pipe 62 (2)            | 77   | 71              | 73               | 70              |
| 410-51318-3       | 1044-P1 (3)            | 71   | 60              | 69               | 65              |
| 410-51318-4       | 1044-P3 (3)            | 115  | 78              | 106              | 107             |
| 410-51318-5       | 649-P5 (3)             | 66   | 55              | 63               | 59              |
| 410-51318-6       | 1044-P2 (3)            | 112  | 91              | 106              | 99              |
| 410-51318-7       | 2045-P2 (3)            | 110  | 85              | 106              | 106             |
| 410-51318-8       | 2045-P4 (3)            | 84   | 77              | 51               | 73              |
| 410-51318-9       | 2045-P5 (3)            | 77   | 76              | 0 S1-            | 72              |
| 410-51318-9 - DL  | 2045-P5 (3)            | 47 S1-   | 70              | 0 S1-            | 43 S1-          |
| 410-51318-10      | Pipe 43 (2)            | 111  | 96              | 106              | 96              |
| 410-51318-11      | Pipe 42 (2)            | 112  | 92              | 103              | 95              |
| 410-51318-12      | Pipe 41 (2)            | 114  | 92              | 104              | 95              |
| LCS 410-162756/5  | Lab Control Sample     | 100  | 97              | 100              | 101             |
| LCS 410-163191/5  | Lab Control Sample     | 104  | 99              | 101              | 101             |
| LCS 410-163301/4  | Lab Control Sample     | 92   | 92              | 96               | 93              |
| LCS 410-163807/6  | Lab Control Sample     | 99   | 85              | 96               | 90              |
| LCSD 410-162756/6 | Lab Control Sample Dup | 101  | 99              | 99               | 102             |
| LCSD 410-163191/6 | Lab Control Sample Dup | 103  | 98              | 102              | 99              |
| LCSD 410-163301/5 | Lab Control Sample Dup | 93   | 91              | 97               | 93              |
| LCSD 410-163807/7 | Lab Control Sample Dup | 100  | 86              | 97               | 91              |
| MB 410-162756/10  | Method Blank           | 104  | 92              | 102              | 98              |
| MB 410-163191/10  | Method Blank           | 105  | 93              | 103              | 98              |
| MB 410-163301/9   | Method Blank           | 99   | 91              | 98               | 93              |
| MB 410-163807/11  | Method Blank           | 98   | 83              | 94               | 89              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-51318-13      | Trip Blank             | 95   | 95              | 96               | 100             |
| LCS 410-163820/4  | Lab Control Sample     | 97   | 96              | 96               | 101             |
| LCSD 410-163820/5 | Lab Control Sample Dup | 97   | 96              | 97               | 101             |
| MB 410-163820/6   | Method Blank           | 96   | 95              | 96               | 101             |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-51318-1

Project/Site: PBF Logistics

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-51318-1        | Pipe 63 (2)        | 84   | 62             | 86                 |
| 410-51318-2        | Pipe 62 (2)        | 70   | 60             | 80                 |
| 410-51318-3        | 1044-P1 (3)        | 84   | 65             | 88                 |
| 410-51318-4        | 1044-P3 (3)        | 79   | 65             | 82                 |
| 410-51318-5        | 649-P5 (3)         | 71   | 56             | 68                 |
| 410-51318-6        | 1044-P2 (3)        | 83   | 65             | 90                 |
| 410-51318-7        | 2045-P2 (3)        | 89   | 71             | 87                 |
| 410-51318-8        | 2045-P4 (3)        | 68   | 74             | 85                 |
| 410-51318-9        | 2045-P5 (3)        | 53   | 72             | 76                 |
| 410-51318-10       | Pipe 43 (2)        | 70   | 70             | 81                 |
| 410-51318-11       | Pipe 42 (2)        | 58   | 50             | 56                 |
| 410-51318-12       | Pipe 41 (2)        | 43   | 41             | 41 S1-             |
| LCS 410-161669/2-A | Lab Control Sample | 90   | 73             | 98                 |
| LCS 410-162989/2-A | Lab Control Sample | 85   | 80             | 89                 |
| LCS 410-162991/2-A | Lab Control Sample | 92   | 72             | 97                 |
| LCS 410-165124/2-A | Lab Control Sample | 90   | 79             | 98                 |
| MB 410-161669/1-A  | Method Blank       | 94   | 78             | 103                |
| MB 410-162989/1-A  | Method Blank       | 80   | 75             | 85                 |
| MB 410-162991/1-A  | Method Blank       | 89   | 72             | 98                 |
| MB 410-165124/1-A  | Method Blank       | 91   | 83             | 107                |

## Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-162756/10

Matrix: Solid

Analysis Batch: 162756

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/21 13:01 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/21 13:01 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 08/20/21 13:01 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92           |              | 50 - 131 |          | 08/20/21 13:01 | 1       |
| Dibromofluoromethane (Surr)  | 102          |              | 50 - 141 |          | 08/20/21 13:01 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/20/21 13:01 | 1       |

Lab Sample ID: LCS 410-162756/5

Matrix: Solid

Analysis Batch: 162756

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 16.7       |               | ug/Kg |   | 84   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 18.5       |               | ug/Kg |   | 93   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.1       |               | ug/Kg |   | 80   | 73 - 120     |
| Toluene                     | 20.0        | 16.8       |               | ug/Kg |   | 84   | 80 - 120     |
| Xylenes, Total              | 60.0        | 50.4       |               | ug/Kg |   | 84   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.6       |               | ug/Kg |   | 93   | 72 - 120     |
| Benzene                     | 20.0        | 18.0       |               | ug/Kg |   | 90   | 80 - 120     |
| Naphthalene                 | 20.0        | 16.7       |               | ug/Kg |   | 84   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.5       |               | ug/Kg |   | 82   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 16.0       |               | ug/Kg |   | 80   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 18.5       |               | ug/Kg |   | 92   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: LCSD 410-162756/6

Matrix: Solid

Analysis Batch: 162756

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 16.5        |                | ug/Kg |   | 82   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane | 20.0        | 17.8        |                | ug/Kg |   | 89   | 71 - 128     | 4   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-162756/6

Matrix: Solid

Analysis Batch: 162756

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 16.0        |                | ug/Kg |   | 80   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 16.5        |                | ug/Kg |   | 82   | 80 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 49.9        |                | ug/Kg |   | 83   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.1        |                | ug/Kg |   | 90   | 72 - 120     | 3   | 30        |
| Benzene                     | 20.0        | 17.3        |                | ug/Kg |   | 86   | 80 - 120     | 4   | 30        |
| Naphthalene                 | 20.0        | 16.3        |                | ug/Kg |   | 82   | 48 - 130     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.2        |                | ug/Kg |   | 81   | 73 - 120     | 2   | 30        |
| Isopropylbenzene            | 20.0        | 15.7        |                | ug/Kg |   | 78   | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane           | 20.0        | 18.3        |                | ug/Kg |   | 91   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 102            |                | 52 - 141 |

Lab Sample ID: MB 410-163191/10

Matrix: Solid

Analysis Batch: 163191

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/22/21 13:28 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/22/21 13:28 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/22/21 13:28 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93           |              | 50 - 131 |          | 08/22/21 13:28 | 1       |
| Dibromofluoromethane (Surr)  | 103          |              | 50 - 141 |          | 08/22/21 13:28 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/22/21 13:28 | 1       |

Lab Sample ID: LCS 410-163191/5

Matrix: Solid

Analysis Batch: 163191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 20.0        | 17.5       |               | ug/Kg |   | 88   | 78 - 120     |
| 1,2-Dichloroethane     | 20.0        | 19.1       |               | ug/Kg |   | 96   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 20.0        | 16.8       |               | ug/Kg |   | 84   | 73 - 120     |
| Toluene                | 20.0        | 17.4       |               | ug/Kg |   | 87   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-163191/5

Matrix: Solid

Analysis Batch: 163191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 60.0        | 52.4       |               | ug/Kg |   | 87   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.8       |               | ug/Kg |   | 99   | 72 - 120     |
| Benzene                     | 20.0        | 18.9       |               | ug/Kg |   | 94   | 80 - 120     |
| Naphthalene                 | 20.0        | 16.4       |               | ug/Kg |   | 82   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.1       |               | ug/Kg |   | 86   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 17.1       |               | ug/Kg |   | 85   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 18.5       |               | ug/Kg |   | 92   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: LCSD 410-163191/6

Matrix: Solid

Analysis Batch: 163191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 17.5        |                | ug/Kg |   | 87   | 78 - 120     | 0   | 30        |
| 1,2-Dichloroethane          | 20.0        | 19.2        |                | ug/Kg |   | 96   | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.1        |                | ug/Kg |   | 86   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 17.4        |                | ug/Kg |   | 87   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 60.0        | 52.4        |                | ug/Kg |   | 87   | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 120     | 3   | 30        |
| Benzene                     | 20.0        | 19.1        |                | ug/Kg |   | 95   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 16.7        |                | ug/Kg |   | 83   | 48 - 130     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.4        |                | ug/Kg |   | 87   | 73 - 120     | 2   | 30        |
| Isopropylbenzene            | 20.0        | 17.1        |                | ug/Kg |   | 85   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 20.0        | 18.9        |                | ug/Kg |   | 94   | 76 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

Lab Sample ID: MB 410-163301/9

Matrix: Solid

Analysis Batch: 163301

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/23/21 12:33 | 50      |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-163301/9

Matrix: Solid

Analysis Batch: 163301

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 250 | 25  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| Naphthalene            | ND        |              | 250 | 100 | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| Isopropylbenzene       | ND        |              | 250 | 20  | ug/Kg |   |          | 08/23/21 12:33 | 50      |
| 1,2-Dibromoethane      | ND        |              | 250 | 20  | ug/Kg |   |          | 08/23/21 12:33 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 54 - 135 |          | 08/23/21 12:33 | 50      |
| 4-Bromofluorobenzene (Surr)  | 91           |              | 50 - 131 |          | 08/23/21 12:33 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/23/21 12:33 | 50      |
| Toluene-d8 (Surr)            | 93           |              | 52 - 141 |          | 08/23/21 12:33 | 50      |

Lab Sample ID: LCS 410-163301/4

Matrix: Solid

Analysis Batch: 163301

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 961        |               | ug/Kg |   | 96   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 966        |               | ug/Kg |   | 97   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 979        |               | ug/Kg |   | 98   | 73 - 120     |
| Toluene                     | 1000        | 968        |               | ug/Kg |   | 97   | 80 - 120     |
| Xylenes, Total              | 3000        | 2900       |               | ug/Kg |   | 97   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 1000       |               | ug/Kg |   | 100  | 72 - 120     |
| Benzene                     | 1000        | 1000       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 1000        | 872        |               | ug/Kg |   | 87   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 964        |               | ug/Kg |   | 96   | 73 - 120     |
| Isopropylbenzene            | 1000        | 1000       |               | ug/Kg |   | 100  | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 970        |               | ug/Kg |   | 97   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 92            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 92            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 96            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 93            |               | 52 - 141 |

Lab Sample ID: LCSD 410-163301/5

Matrix: Solid

Analysis Batch: 163301

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 959         |                | ug/Kg |   | 96   | 78 - 120     | 0   | 30        |
| 1,2-Dichloroethane          | 1000        | 983         |                | ug/Kg |   | 98   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 975         |                | ug/Kg |   | 98   | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 957         |                | ug/Kg |   | 96   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2870        |                | ug/Kg |   | 96   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 1000        | 1010        |                | ug/Kg |   | 101  | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 986         |                | ug/Kg |   | 99   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 922         |                | ug/Kg |   | 92   | 48 - 130     | 6   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-163301/5

Matrix: Solid

Analysis Batch: 163301

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene | 1000        | 974         |                | ug/Kg |   | 97   | 73 - 120     | 1   | 30        |
| Isopropylbenzene       | 1000        | 1000        |                | ug/Kg |   | 100  | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane      | 1000        | 967         |                | ug/Kg |   | 97   | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 93             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 91             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 93             |                | 52 - 141 |

Lab Sample ID: MB 410-163807/11

Matrix: Solid

Analysis Batch: 163807

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 08/24/21 12:31 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 08/24/21 12:31 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98           |              | 54 - 135 |          | 08/24/21 12:31 | 50      |
| 4-Bromofluorobenzene (Surr)  | 83           |              | 50 - 131 |          | 08/24/21 12:31 | 50      |
| Dibromofluoromethane (Surr)  | 94           |              | 50 - 141 |          | 08/24/21 12:31 | 50      |
| Toluene-d8 (Surr)            | 89           |              | 52 - 141 |          | 08/24/21 12:31 | 50      |

Lab Sample ID: LCS 410-163807/6

Matrix: Solid

Analysis Batch: 163807

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 928        |               | ug/Kg |   | 93   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 925        |               | ug/Kg |   | 92   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 844        |               | ug/Kg |   | 84   | 73 - 120     |
| Toluene                     | 1000        | 950        |               | ug/Kg |   | 95   | 80 - 120     |
| Xylenes, Total              | 3000        | 2880       |               | ug/Kg |   | 96   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 982        |               | ug/Kg |   | 98   | 72 - 120     |
| Benzene                     | 1000        | 987        |               | ug/Kg |   | 99   | 80 - 120     |
| Naphthalene                 | 1000        | 791        |               | ug/Kg |   | 79   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 839        |               | ug/Kg |   | 84   | 73 - 120     |
| Isopropylbenzene            | 1000        | 937        |               | ug/Kg |   | 94   | 77 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-163807/6

Matrix: Solid

Analysis Batch: 163807

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,2-Dibromoethane | 1000        | 973        |               | ug/Kg |   | 97   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 85            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 96            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 90            |               | 52 - 141 |

Lab Sample ID: LCSD 410-163807/7

Matrix: Solid

Analysis Batch: 163807

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 935         |                | ug/Kg |   | 93   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 924         |                | ug/Kg |   | 92   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 847         |                | ug/Kg |   | 85   | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 961         |                | ug/Kg |   | 96   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2890        |                | ug/Kg |   | 96   | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 1000        | 987         |                | ug/Kg |   | 99   | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 997         |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 789         |                | ug/Kg |   | 79   | 48 - 130     | 0   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 845         |                | ug/Kg |   | 84   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 1000        | 957         |                | ug/Kg |   | 96   | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane           | 1000        | 980         |                | ug/Kg |   | 98   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 86             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 97             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 91             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-163820/6

Matrix: Water

Analysis Batch: 163820

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:02 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/24/21 12:02 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:02 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/24/21 12:02 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:02 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/24/21 12:02 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/21 12:02 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/21 12:02 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/24/21 12:02 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/24/21 12:02 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-163820/6

Matrix: Water

Analysis Batch: 163820

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Isopropylbenzene | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/24/21 12:02 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96              |                 | 80 - 120 |          | 08/24/21 12:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95              |                 | 80 - 120 |          | 08/24/21 12:02 | 1       |
| Dibromofluoromethane (Surr)  | 96              |                 | 80 - 120 |          | 08/24/21 12:02 | 1       |
| Toluene-d8 (Surr)            | 101             |                 | 80 - 120 |          | 08/24/21 12:02 | 1       |

Lab Sample ID: LCS 410-163820/4

Matrix: Water

Analysis Batch: 163820

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| 1,2-Dibromoethane           | 20.0           | 17.2          |                  | ug/L |   | 86   | 77 - 120        |
| Ethylbenzene                | 20.0           | 18.1          |                  | ug/L |   | 91   | 80 - 120        |
| 1,2-Dichloroethane          | 20.0           | 16.8          |                  | ug/L |   | 84   | 73 - 124        |
| 1,3,5-Trimethylbenzene      | 20.0           | 18.0          |                  | ug/L |   | 90   | 75 - 120        |
| Toluene                     | 20.0           | 17.7          |                  | ug/L |   | 89   | 80 - 120        |
| Xylenes, Total              | 60.0           | 54.0          |                  | ug/L |   | 90   | 80 - 120        |
| Methyl tertiary butyl ether | 20.0           | 16.5          |                  | ug/L |   | 83   | 69 - 122        |
| Benzene                     | 20.0           | 17.3          |                  | ug/L |   | 86   | 80 - 120        |
| Naphthalene                 | 20.0           | 17.2          |                  | ug/L |   | 86   | 53 - 124        |
| 1,2,4-Trimethylbenzene      | 20.0           | 17.9          |                  | ug/L |   | 89   | 75 - 120        |
| Isopropylbenzene            | 20.0           | 17.3          |                  | ug/L |   | 86   | 80 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97               |                  | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 96               |                  | 80 - 120 |
| Dibromofluoromethane (Surr)  | 96               |                  | 80 - 120 |
| Toluene-d8 (Surr)            | 101              |                  | 80 - 120 |

Lab Sample ID: LCSD 410-163820/5

Matrix: Water

Analysis Batch: 163820

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|-----------------------------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| 1,2-Dibromoethane           | 20.0           | 21.0           |                   | ug/L |   | 105  | 77 - 120        | 20  | 30           |
| Ethylbenzene                | 20.0           | 22.1           |                   | ug/L |   | 110  | 80 - 120        | 20  | 30           |
| 1,2-Dichloroethane          | 20.0           | 20.0           |                   | ug/L |   | 100  | 73 - 124        | 18  | 30           |
| 1,3,5-Trimethylbenzene      | 20.0           | 21.7           |                   | ug/L |   | 109  | 75 - 120        | 19  | 30           |
| Toluene                     | 20.0           | 21.3           |                   | ug/L |   | 107  | 80 - 120        | 19  | 30           |
| Xylenes, Total              | 60.0           | 65.1           |                   | ug/L |   | 109  | 80 - 120        | 19  | 30           |
| Methyl tertiary butyl ether | 20.0           | 20.0           |                   | ug/L |   | 100  | 69 - 122        | 19  | 30           |
| Benzene                     | 20.0           | 20.9           |                   | ug/L |   | 104  | 80 - 120        | 19  | 30           |
| Naphthalene                 | 20.0           | 20.2           |                   | ug/L |   | 101  | 53 - 124        | 16  | 30           |
| 1,2,4-Trimethylbenzene      | 20.0           | 22.0           |                   | ug/L |   | 110  | 75 - 120        | 21  | 30           |
| Isopropylbenzene            | 20.0           | 21.3           |                   | ug/L |   | 106  | 80 - 120        | 21  | 30           |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-163820/5

Matrix: Water

Analysis Batch: 163820

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |
| Dibromofluoromethane (Surr)  | 97        |           | 80 - 120 |
| Toluene-d8 (Surr)            | 101       |           | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-161669/1-A

Matrix: Solid

Analysis Batch: 163104

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 161669

| Analyte              | MB     | MB        |    |     |       |   |                |                |     |     |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|-----|-----|
|                      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil | Fac |
| Anthracene           | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Benzo[a]anthracene   | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Benzo[a]pyrene       | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Benzo[b]fluoranthene | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Benzo[g,h,i]perylene | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Chrysene             | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Fluorene             | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Phenanthrene         | ND     |           | 17 | 4.0 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |
| Pyrene               | ND     |           | 17 | 3.3 | ug/Kg |   | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |

|                         | MB        | MB        |          |                |                |     |     |  |  |  |
|-------------------------|-----------|-----------|----------|----------------|----------------|-----|-----|--|--|--|
| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil | Fac |  |  |  |
| 2-Fluorobiphenyl (Surr) | 94        |           | 39 - 100 | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |  |  |  |
| Nitrobenzene-d5 (Surr)  | 78        |           | 32 - 97  | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |  |  |  |
| p-Terphenyl-d14 (Surr)  | 103       |           | 45 - 108 | 08/18/21 10:11 | 08/21/21 14:28 | 1   |     |  |  |  |

Lab Sample ID: LCS 410-161669/2-A

Matrix: Solid

Analysis Batch: 163104

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 161669

| Analyte              | Spike | LCS    | LCS       |       |   |      |          |  |  |  |
|----------------------|-------|--------|-----------|-------|---|------|----------|--|--|--|
|                      | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |  |  |
| Anthracene           | 1670  | 1460   |           | ug/Kg |   | 87   | 75 - 120 |  |  |  |
| Benzo[a]anthracene   | 1670  | 1580   |           | ug/Kg |   | 95   | 73 - 120 |  |  |  |
| Benzo[a]pyrene       | 1670  | 1510   |           | ug/Kg |   | 90   | 80 - 123 |  |  |  |
| Benzo[b]fluoranthene | 1670  | 1560   |           | ug/Kg |   | 94   | 63 - 120 |  |  |  |
| Benzo[g,h,i]perylene | 1670  | 1640   |           | ug/Kg |   | 99   | 77 - 120 |  |  |  |
| Chrysene             | 1670  | 1530   |           | ug/Kg |   | 92   | 66 - 120 |  |  |  |
| Fluorene             | 1670  | 1570   |           | ug/Kg |   | 94   | 68 - 120 |  |  |  |
| Phenanthrene         | 1670  | 1470   |           | ug/Kg |   | 88   | 74 - 120 |  |  |  |
| Pyrene               | 1670  | 1540   |           | ug/Kg |   | 92   | 70 - 120 |  |  |  |

|                         | LCS       | LCS       |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 90        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 73        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 98        |           | 45 - 108 |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-162989/1-A

Matrix: Solid

Analysis Batch: 163107

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 162989

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:42 | 08/21/21 15:28 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80           |              | 39 - 100 | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| Nitrobenzene-d5 (Surr)  | 75           |              | 32 - 97  | 08/20/21 17:42 | 08/21/21 15:28 | 1       |
| p-Terphenyl-d14 (Surr)  | 85           |              | 45 - 108 | 08/20/21 17:42 | 08/21/21 15:28 | 1       |

Lab Sample ID: LCS 410-162989/2-A

Matrix: Solid

Analysis Batch: 163107

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162989

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1520       |               | ug/Kg |   | 91   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1450       |               | ug/Kg |   | 87   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1560       |               | ug/Kg |   | 94   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1440       |               | ug/Kg |   | 86   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1490       |               | ug/Kg |   | 90   | 77 - 120     |
| Chrysene             | 1670        | 1370       |               | ug/Kg |   | 82   | 66 - 120     |
| Fluorene             | 1670        | 1460       |               | ug/Kg |   | 88   | 68 - 120     |
| Phenanthrene         | 1670        | 1470       |               | ug/Kg |   | 88   | 74 - 120     |
| Pyrene               | 1670        | 1420       |               | ug/Kg |   | 85   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 85            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 80            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 89            |               | 45 - 108 |

Lab Sample ID: MB 410-162991/1-A

Matrix: Solid

Analysis Batch: 163224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 162991

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-162991/1-A

Matrix: Solid

Analysis Batch: 163224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 162991

| Analyte                 | MB Result | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND        |              | 17       | 3.3 | ug/Kg |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Surrogate               | %Recovery | Qualifier    | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 89        |              | 39 - 100 |     |       |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |              | 32 - 97  |     |       |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |
| p-Terphenyl-d14 (Surr)  | 98        |              | 45 - 108 |     |       |   | 08/20/21 17:48 | 08/23/21 11:39 | 1       |

Lab Sample ID: LCS 410-162991/2-A

Matrix: Solid

Analysis Batch: 163224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162991

| Analyte                 | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene              | 1670        | 1520       |               | ug/Kg |   | 91   | 75 - 120     |
| Benzo[a]anthracene      | 1670        | 1640       |               | ug/Kg |   | 98   | 73 - 120     |
| Benzo[a]pyrene          | 1670        | 1560       |               | ug/Kg |   | 93   | 80 - 123     |
| Benzo[b]fluoranthene    | 1670        | 1540       |               | ug/Kg |   | 92   | 63 - 120     |
| Benzo[g,h,i]perylene    | 1670        | 1680       |               | ug/Kg |   | 101  | 77 - 120     |
| Chrysene                | 1670        | 1630       |               | ug/Kg |   | 98   | 66 - 120     |
| Fluorene                | 1670        | 1610       |               | ug/Kg |   | 96   | 68 - 120     |
| Phenanthrene            | 1670        | 1540       |               | ug/Kg |   | 92   | 74 - 120     |
| Pyrene                  | 1670        | 1580       |               | ug/Kg |   | 95   | 70 - 120     |
| Surrogate               | %Recovery   | Qualifier  | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 92          |            | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 72          |            | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 97          |            | 45 - 108      |       |   |      |              |

Lab Sample ID: MB 410-165124/1-A

Matrix: Solid

Analysis Batch: 165291

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165124

| Analyte                 | MB Result | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Benzo[a]anthracene      | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Benzo[a]pyrene          | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Benzo[b]fluoranthene    | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Benzo[g,h,i]perylene    | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Chrysene                | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Fluorene                | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Phenanthrene            | ND        |              | 17       | 4.0 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Pyrene                  | ND        |              | 17       | 3.3 | ug/Kg |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Surrogate               | %Recovery | Qualifier    | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 91        |              | 39 - 100 |     |       |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| Nitrobenzene-d5 (Surr)  | 83        |              | 32 - 97  |     |       |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |
| p-Terphenyl-d14 (Surr)  | 107       |              | 45 - 108 |     |       |   | 08/26/21 16:16 | 08/27/21 08:26 | 1       |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-165124/2-A

Matrix: Solid

Analysis Batch: 165291

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165124

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1550       |               | ug/Kg |   | 93   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1460       |               | ug/Kg |   | 87   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1510       |               | ug/Kg |   | 90   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1430       |               | ug/Kg |   | 86   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1760       |               | ug/Kg |   | 106  | 77 - 120     |
| Chrysene             | 1670        | 1610       |               | ug/Kg |   | 96   | 66 - 120     |
| Fluorene             | 1670        | 1530       |               | ug/Kg |   | 92   | 68 - 120     |
| Phenanthrene         | 1670        | 1480       |               | ug/Kg |   | 89   | 74 - 120     |
| Pyrene               | 1670        | 1440       |               | ug/Kg |   | 86   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 90            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 79            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 98            |               | 45 - 108 |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-160613/1-A

Matrix: Solid

Analysis Batch: 160923

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160613

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 08/16/21 03:44 | 08/16/21 13:38 | 1       |

Lab Sample ID: LCS 410-160613/2-A

Matrix: Solid

Analysis Batch: 160923

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160613

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.18       |               | mg/Kg |   | 104  | 80 - 120     |

Lab Sample ID: MB 410-160614/1-A

Matrix: Solid

Analysis Batch: 162054

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160614

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 08/16/21 03:51 | 08/18/21 16:47 | 1       |

Lab Sample ID: LCS 410-160614/2-A

Matrix: Solid

Analysis Batch: 162054

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160614

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.23       |               | mg/Kg |   | 105  | 80 - 120     |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-51318-11 MS

Matrix: Solid

Analysis Batch: 162054

Client Sample ID: Pipe 42 (2)

Prep Type: Total/NA

Prep Batch: 160614

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Lead    | 110           |                  | 6.93        | 132       | 4            | mg/Kg | ✱ | 351  | 75 - 125     |

Lab Sample ID: 410-51318-11 MSD

Matrix: Solid

Analysis Batch: 162054

Client Sample ID: Pipe 42 (2)

Prep Type: Total/NA

Prep Batch: 160614

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Lead    | 110           |                  | 5.79        | 117        | 4             | mg/Kg | ✱ | 160  | 75 - 125     | 12  | 20        |

Lab Sample ID: 410-51318-11 DU

Matrix: Solid

Analysis Batch: 162054

Client Sample ID: Pipe 42 (2)

Prep Type: Total/NA

Prep Batch: 160614

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Lead    | 110           |                  | 124       |              | mg/Kg | ✱ | 14  | 20        |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## GC/MS VOA

### Prep Batch: 160790

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-51318-1      | Pipe 63 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-4      | 1044-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-4 - RA | 1044-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-6      | 1044-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-7      | 2045-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-10     | Pipe 43 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-11     | Pipe 42 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-12     | Pipe 41 (2)      | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 160812

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-51318-2      | Pipe 62 (2)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-3      | 1044-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-5      | 649-P5 (3)       | Total/NA  | Solid  | 5035   |            |
| 410-51318-8      | 2045-P4 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-9      | 2045-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-9 - RA | 2045-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-51318-9 - DL | 2045-P5 (3)      | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 162756

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51318-4       | 1044-P3 (3)            | Total/NA  | Solid  | 8260C  | 160790     |
| 410-51318-7       | 2045-P2 (3)            | Total/NA  | Solid  | 8260C  | 160790     |
| MB 410-162756/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-162756/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-162756/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 163191

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51318-1       | Pipe 63 (2)            | Total/NA  | Solid  | 8260C  | 160790     |
| 410-51318-4 - RA  | 1044-P3 (3)            | Total/NA  | Solid  | 8260C  | 160790     |
| 410-51318-6       | 1044-P2 (3)            | Total/NA  | Solid  | 8260C  | 160790     |
| 410-51318-10      | Pipe 43 (2)            | Total/NA  | Solid  | 8260C  | 160790     |
| 410-51318-11      | Pipe 42 (2)            | Total/NA  | Solid  | 8260C  | 160790     |
| 410-51318-12      | Pipe 41 (2)            | Total/NA  | Solid  | 8260C  | 160790     |
| MB 410-163191/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-163191/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-163191/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 163301

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51318-2       | Pipe 62 (2)            | Total/NA  | Solid  | 8260C  | 160812     |
| 410-51318-3       | 1044-P1 (3)            | Total/NA  | Solid  | 8260C  | 160812     |
| 410-51318-5       | 649-P5 (3)             | Total/NA  | Solid  | 8260C  | 160812     |
| 410-51318-9       | 2045-P5 (3)            | Total/NA  | Solid  | 8260C  | 160812     |
| MB 410-163301/9   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-163301/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-163301/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### GC/MS VOA

#### Analysis Batch: 163807

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-51318-8       | 2045-P4 (3)            | Total/NA  | Solid  | 8260C  | 160812     |
| 410-51318-9 - RA  | 2045-P5 (3)            | Total/NA  | Solid  | 8260C  | 160812     |
| 410-51318-9 - DL  | 2045-P5 (3)            | Total/NA  | Solid  | 8260C  | 160812     |
| MB 410-163807/11  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-163807/6  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-163807/7 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 163820

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-51318-13      | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-163820/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-163820/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-163820/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

### GC/MS Semi VOA

#### Prep Batch: 161669

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-1        | Pipe 63 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-2        | Pipe 62 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-3        | 1044-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-4        | 1044-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| MB 410-161669/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-161669/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 162989

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-5        | 649-P5 (3)         | Total/NA  | Solid  | 3546   |            |
| 410-51318-6        | 1044-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-7        | 2045-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-8        | 2045-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-9        | 2045-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| MB 410-162989/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-162989/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 162991

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-11       | Pipe 42 (2)        | Total/NA  | Solid  | 3546   |            |
| 410-51318-12       | Pipe 41 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-162991/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-162991/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 163104

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-1        | Pipe 63 (2)        | Total/NA  | Solid  | 8270D  | 161669     |
| 410-51318-2        | Pipe 62 (2)        | Total/NA  | Solid  | 8270D  | 161669     |
| 410-51318-3        | 1044-P1 (3)        | Total/NA  | Solid  | 8270D  | 161669     |
| 410-51318-4        | 1044-P3 (3)        | Total/NA  | Solid  | 8270D  | 161669     |
| MB 410-161669/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 161669     |
| LCS 410-161669/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 161669     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### GC/MS Semi VOA

#### Analysis Batch: 163107

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-162989/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 162989     |
| LCS 410-162989/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 162989     |

#### Analysis Batch: 163224

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-5        | 649-P5 (3)         | Total/NA  | Solid  | 8270D  | 162989     |
| 410-51318-6        | 1044-P2 (3)        | Total/NA  | Solid  | 8270D  | 162989     |
| 410-51318-7        | 2045-P2 (3)        | Total/NA  | Solid  | 8270D  | 162989     |
| 410-51318-8        | 2045-P4 (3)        | Total/NA  | Solid  | 8270D  | 162989     |
| 410-51318-9        | 2045-P5 (3)        | Total/NA  | Solid  | 8270D  | 162989     |
| 410-51318-11       | Pipe 42 (2)        | Total/NA  | Solid  | 8270D  | 162991     |
| 410-51318-12       | Pipe 41 (2)        | Total/NA  | Solid  | 8270D  | 162991     |
| MB 410-162991/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 162991     |
| LCS 410-162991/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 162991     |

#### Prep Batch: 165124

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-10       | Pipe 43 (2)        | Total/NA  | Solid  | 3546   |            |
| MB 410-165124/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-165124/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 165291

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-10       | Pipe 43 (2)        | Total/NA  | Solid  | 8270D  | 165124     |
| MB 410-165124/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 165124     |
| LCS 410-165124/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 165124     |

### Metals

#### Prep Batch: 160613

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-1        | Pipe 63 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-2        | Pipe 62 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-3        | 1044-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-4        | 1044-P3 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-5        | 649-P5 (3)         | Total/NA  | Solid  | 3050B  |            |
| 410-51318-6        | 1044-P2 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-7        | 2045-P2 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-8        | 2045-P4 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-9        | 2045-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-160613/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-160613/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

#### Prep Batch: 160614

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-10       | Pipe 43 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-11       | Pipe 42 (2)        | Total/NA  | Solid  | 3050B  |            |
| 410-51318-12       | Pipe 41 (2)        | Total/NA  | Solid  | 3050B  |            |
| MB 410-160614/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-160614/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-51318-11 MS    | Pipe 42 (2)        | Total/NA  | Solid  | 3050B  |            |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Metals (Continued)

### Prep Batch: 160614 (Continued)

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-51318-11 MSD | Pipe 42 (2)      | Total/NA  | Solid  | 3050B  |            |
| 410-51318-11 DU  | Pipe 42 (2)      | Total/NA  | Solid  | 3050B  |            |

### Analysis Batch: 160923

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-1        | Pipe 63 (2)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-2        | Pipe 62 (2)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-3        | 1044-P1 (3)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-4        | 1044-P3 (3)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-5        | 649-P5 (3)         | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-6        | 1044-P2 (3)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-7        | 2045-P2 (3)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-8        | 2045-P4 (3)        | Total/NA  | Solid  | 6010C  | 160613     |
| 410-51318-9        | 2045-P5 (3)        | Total/NA  | Solid  | 6010C  | 160613     |
| MB 410-160613/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 160613     |
| LCS 410-160613/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 160613     |

### Analysis Batch: 162054

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-51318-10       | Pipe 43 (2)        | Total/NA  | Solid  | 6010C  | 160614     |
| 410-51318-11       | Pipe 42 (2)        | Total/NA  | Solid  | 6010C  | 160614     |
| 410-51318-12       | Pipe 41 (2)        | Total/NA  | Solid  | 6010C  | 160614     |
| MB 410-160614/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 160614     |
| LCS 410-160614/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 160614     |
| 410-51318-11 MS    | Pipe 42 (2)        | Total/NA  | Solid  | 6010C  | 160614     |
| 410-51318-11 MSD   | Pipe 42 (2)        | Total/NA  | Solid  | 6010C  | 160614     |
| 410-51318-11 DU    | Pipe 42 (2)        | Total/NA  | Solid  | 6010C  | 160614     |

## General Chemistry

### Analysis Batch: 160744

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-51318-1   | Pipe 63 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-2   | Pipe 62 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-3   | 1044-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-4   | 1044-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-10  | Pipe 43 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-11  | Pipe 42 (2)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-12  | Pipe 41 (2)      | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 160782

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-51318-5   | 649-P5 (3)       | Total/NA  | Solid  | Moisture |            |
| 410-51318-6   | 1044-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-7   | 2045-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-8   | 2045-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-51318-9   | 2045-P5 (3)      | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

**Client Sample ID: Pipe 63 (2)**

**Lab Sample ID: 410-51318-1**

**Date Collected: 08/12/21 11:40**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

**Client Sample ID: Pipe 63 (2)**

**Lab Sample ID: 410-51318-1**

**Date Collected: 08/12/21 11:40**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

**Percent Solids: 72.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 163191       | 08/22/21 20:32       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 161669       | 08/18/21 10:11       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163104       | 08/21/21 17:38       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 13:59       | WJM9    | ELLE |

**Client Sample ID: Pipe 62 (2)**

**Lab Sample ID: 410-51318-2**

**Date Collected: 08/12/21 11:50**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

**Client Sample ID: Pipe 62 (2)**

**Lab Sample ID: 410-51318-2**

**Date Collected: 08/12/21 11:50**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

**Percent Solids: 73.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 163301       | 08/23/21 16:47       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 161669       | 08/18/21 10:11       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163104       | 08/21/21 18:02       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:02       | WJM9    | ELLE |

**Client Sample ID: 1044-P1 (3)**

**Lab Sample ID: 410-51318-3**

**Date Collected: 08/12/21 12:00**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

**Client Sample ID: 1044-P1 (3)**

**Lab Sample ID: 410-51318-3**

**Date Collected: 08/12/21 12:00**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

**Percent Solids: 78.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 163301       | 08/23/21 17:09       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 161669       | 08/18/21 10:11       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163104       | 08/21/21 18:25       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:06       | WJM9    | ELLE |

**Client Sample ID: 1044-P3 (3)**

**Lab Sample ID: 410-51318-4**

**Date Collected: 08/12/21 12:30**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

**Client Sample ID: 1044-P3 (3)**

**Lab Sample ID: 410-51318-4**

**Date Collected: 08/12/21 12:30**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

**Percent Solids: 65.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 162756       | 08/20/21 15:18       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 163191       | 08/22/21 18:16       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 161669       | 08/18/21 10:11       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163104       | 08/21/21 18:48       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:09       | WJM9    | ELLE |

**Client Sample ID: 649-P5 (3)**

**Lab Sample ID: 410-51318-5**

**Date Collected: 08/13/21 09:20**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160782       | 08/16/21 09:32       | UWC1    | ELLE |

**Client Sample ID: 649-P5 (3)**

**Lab Sample ID: 410-51318-5**

**Date Collected: 08/13/21 09:20**

**Matrix: Solid**

**Date Received: 08/13/21 18:00**

**Percent Solids: 79.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 163301       | 08/23/21 17:32       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162989       | 08/20/21 17:42       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 15:40       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:28       | WJM9    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

**Client Sample ID: 1044-P2 (3)**

**Lab Sample ID: 410-51318-6**

Date Collected: 08/13/21 09:00

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160782       | 08/16/21 09:32       | UWC1    | ELLE |

**Client Sample ID: 1044-P2 (3)**

**Lab Sample ID: 410-51318-6**

Date Collected: 08/13/21 09:00

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 72.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 163191       | 08/22/21 21:40       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162989       | 08/20/21 17:42       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 16:02       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:31       | WJM9    | ELLE |

**Client Sample ID: 2045-P2 (3)**

**Lab Sample ID: 410-51318-7**

Date Collected: 08/13/21 09:50

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160782       | 08/16/21 09:32       | UWC1    | ELLE |

**Client Sample ID: 2045-P2 (3)**

**Lab Sample ID: 410-51318-7**

Date Collected: 08/13/21 09:50

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 67.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 162756       | 08/20/21 19:09       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162989       | 08/20/21 17:42       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 16:24       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:35       | WJM9    | ELLE |

**Client Sample ID: 2045-P4 (3)**

**Lab Sample ID: 410-51318-8**

Date Collected: 08/13/21 10:15

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160782       | 08/16/21 09:32       | UWC1    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Client Sample ID: 2045-P4 (3)

Lab Sample ID: 410-51318-8

Date Collected: 08/13/21 10:15

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 54.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 163807       | 08/24/21 13:55       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162989       | 08/20/21 17:42       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 16:46       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:38       | WJM9    | ELLE |

## Client Sample ID: 2045-P5 (3)

Lab Sample ID: 410-51318-9

Date Collected: 08/13/21 10:40

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160782       | 08/16/21 09:32       | UWC1    | ELLE |

## Client Sample ID: 2045-P5 (3)

Lab Sample ID: 410-51318-9

Date Collected: 08/13/21 10:40

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 58.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 163301       | 08/23/21 18:16       | SWV2    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 50              | 163807       | 08/24/21 14:16       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | DL  |                 | 160812       | 08/16/21 10:50       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | DL  | 500             | 163807       | 08/24/21 14:36       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162989       | 08/20/21 17:42       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 17:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160613       | 08/16/21 03:44       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 160923       | 08/16/21 14:42       | WJM9    | ELLE |

## Client Sample ID: Pipe 43 (2)

Lab Sample ID: 410-51318-10

Date Collected: 08/13/21 11:05

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

## Client Sample ID: Pipe 43 (2)

Lab Sample ID: 410-51318-10

Date Collected: 08/13/21 11:05

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 60.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 163191       | 08/22/21 20:54       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 165124       | 08/26/21 21:36       | FTV5    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 165291       | 08/27/21 11:24       | ULM3    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

## Client Sample ID: Pipe 43 (2)

Lab Sample ID: 410-51318-10

Date Collected: 08/13/21 11:05

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 60.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 160614       | 08/16/21 03:51       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 162054       | 08/18/21 17:29       | XQY5    | ELLE |

## Client Sample ID: Pipe 42 (2)

Lab Sample ID: 410-51318-11

Date Collected: 08/13/21 11:25

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

## Client Sample ID: Pipe 42 (2)

Lab Sample ID: 410-51318-11

Date Collected: 08/13/21 11:25

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 64.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 163191       | 08/22/21 20:09       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162991       | 08/20/21 17:48       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 18:36       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160614       | 08/16/21 03:51       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 162054       | 08/18/21 17:00       | XQY5    | ELLE |

## Client Sample ID: Pipe 41 (2)

Lab Sample ID: 410-51318-12

Date Collected: 08/13/21 11:35

Matrix: Solid

Date Received: 08/13/21 18:00

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 160744       | 08/16/21 08:55       | UWC1    | ELLE |

## Client Sample ID: Pipe 41 (2)

Lab Sample ID: 410-51318-12

Date Collected: 08/13/21 11:35

Matrix: Solid

Date Received: 08/13/21 18:00

Percent Solids: 58.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 160790       | 08/16/21 09:56       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 163191       | 08/22/21 18:38       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 162991       | 08/20/21 17:48       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 163224       | 08/23/21 18:58       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 160614       | 08/16/21 03:51       | WBK6    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 162054       | 08/18/21 17:25       | XQY5    | ELLE |

Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

Client Sample ID: Trip Blank  
Date Collected: 08/13/21 00:00  
Date Received: 08/13/21 18:00

Lab Sample ID: 410-51318-13  
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 163820       | 08/24/21 12:50       | LCW8    | ELLE |

Laboratory References:  
ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-51318-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-51318-1   | Pipe 63 (2)      | Solid  | 08/12/21 11:40 | 08/13/21 18:00 |
| 410-51318-2   | Pipe 62 (2)      | Solid  | 08/12/21 11:50 | 08/13/21 18:00 |
| 410-51318-3   | 1044-P1 (3)      | Solid  | 08/12/21 12:00 | 08/13/21 18:00 |
| 410-51318-4   | 1044-P3 (3)      | Solid  | 08/12/21 12:30 | 08/13/21 18:00 |
| 410-51318-5   | 649-P5 (3)       | Solid  | 08/13/21 09:20 | 08/13/21 18:00 |
| 410-51318-6   | 1044-P2 (3)      | Solid  | 08/13/21 09:00 | 08/13/21 18:00 |
| 410-51318-7   | 2045-P2 (3)      | Solid  | 08/13/21 09:50 | 08/13/21 18:00 |
| 410-51318-8   | 2045-P4 (3)      | Solid  | 08/13/21 10:15 | 08/13/21 18:00 |
| 410-51318-9   | 2045-P5 (3)      | Solid  | 08/13/21 10:40 | 08/13/21 18:00 |
| 410-51318-10  | Pipe 43 (2)      | Solid  | 08/13/21 11:05 | 08/13/21 18:00 |
| 410-51318-11  | Pipe 42 (2)      | Solid  | 08/13/21 11:25 | 08/13/21 18:00 |
| 410-51318-12  | Pipe 41 (2)      | Solid  | 08/13/21 11:35 | 08/13/21 18:00 |
| 410-51318-13  | Trip Blank       | Water  | 08/13/21 00:00 | 08/13/21 18:00 |

## Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike

Lancaster, PA 17601

Phone: 717-656-2300 Fax: 717-656-2681

## Chain of Custody Record

Environment Testing  
America

|   |  |  |  |  |  |   |  |  |  |
|---|--|--|--|--|--|---|--|--|--|
| <b>Client Information</b>   |  | Sampler <u>DH/IM</u>   |  | Lab PM<br>Carter, Amek A   |  | 410-51318 Chain of Custody                  |  | COC No<br>410-31049-9562 6   |  |
| Client Contact<br>Mark Schaeffer  |  | Phone<br><u>4144673657</u>   |  | E-Mail<br>Loran Carter@eurofinset.com  |  | TH  |  | Page<br>Page 6 of 8  |  |
| Company<br>Stantec Consulting Corp.   |  | PWSID  |  | Analysis Requested   |  |   |  | Job #  |  |
| Address<br>1060 Andrew Drive Suite 140  |  | Due Date Requested:  |  | 8260C - PA Combo of Leaded and Unleaded Gasoline<br>8010C, 8270D, Moisture<br>8260C_UST - PA Combo of Leaded and Unleaded Gasoline |  |   |  | Preservation Codes:<br>A - HCL M - Hexane<br>B - NaOH N - None<br>C - Zn Acetate O - AsNaO2<br>D - Nitric Acid P - Na2O4S<br>E - NaHSO4 Q - Na2SO3<br>F - MeOH R - Na2S2O3<br>G - Amchlor S - H2SO4<br>H - Ascorbic Acid T - TSP Dodecahydrate<br>I - Ice U - Acetone<br>J - DI Water V - MCAA<br>K - EDTA W - pH 4-5<br>L - EDA Z - other (specify)<br><br>Other: |  |
| City<br>West Chester  |  | TAT Requested (days):<br><u>5 days</u>                                       |  |  |  |   |  |  |  |
| State, Zip<br>PA, 19380   |  | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No |  |  |  |   |  |  |  |
| Phone   |  | PO #<br>Purchase Order Requested   |  |  |  |   |  |  |  |
| Email<br>mark.schaeffer@stantec.com   |  | WO #   |  |  |  |   |  |  |  |
| Project Name<br>PBF Logistics   |  | Project #<br>41007459  |  |  |  |   |  |  |  |
| Site<br><u>51st Street Terminal</u>   |  | SSOW#  |  |  |  |   |  |  |  |
| <b>Sample Identification</b>  |  | <b>Sample Date</b>   |  | <b>Sample Time</b>   |  | <b>Sample Type (C=Comp, G=grab)</b>         |  | <b>Matrix (W=water, S=solid, O=wet soil, BT=Tissue, A=Air)</b>   |  |
| Pipe 63 (2)   |  | 8/12/21  |  | 1140   |  | G   |  | Solid  |  |
| Pipe 62 (2)   |  | 8/12/21  |  | 1150   |  | G   |  | Solid  |  |
| 1044 - P1 (3)   |  | 8/12/21  |  | 1200   |  | G   |  | Solid  |  |
| 1044 - P3 (3)   |  | 8/12/21  |  | 1230   |  | G   |  | Solid  |  |
| 1049 - P5 (3)   |  | 8/13/21  |  | 0920   |  | G   |  | Solid  |  |
| 1044 - P2 (3)   |  | 8/13/21  |  | 0900   |  | G   |  | Solid  |  |
| 2045 - P2 (3)   |  | 8/13/21  |  | 0950   |  | G   |  | Solid  |  |
| 2045 - P4 (3)   |  | 8/13/21  |  | 1015   |  | G   |  | Solid  |  |
| 2045 - P5 (3)   |  | 8/13/21  |  | 1040   |  | G   |  | Solid  |  |
| Pipe 43 (2)   |  | 8/13/21  |  | 1105   |  | G   |  | Solid  |  |
| Pipe 42 (2)   |  | 8/13/21  |  | 1125   |  | G   |  | Solid  |  |
| <b>Possible Hazard Identification</b><br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  |  |  |  |  |   |  |  |  |
| <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b><br><input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months                   |  |  |  |  |  |   |  |  |  |
| <b>Deliverable Requested I, II, III, IV, Other (specify)</b><br>Special Instructions/QC Requirements  |  |  |  |  |  |   |  |  |  |
| <b>Empty Kit Relinquished by:</b> _____ <b>Date:</b> _____ <b>Time:</b> _____ <b>Method of Shipment:</b> _____  |  |  |  |  |  |   |  |  |  |
| Relinquished by   |  | Date/Time  |  | Company  |  | Received by                                 |  | Date/Time  |  |
| Relinquished by   |  | Date/Time  |  | Company  |  | Received by                                 |  | Date/Time  |  |
| Relinquished by   |  | Date/Time  |  | Company  |  | Received by                                 |  | Date/Time  |  |
| Custody Seals Intact:   |  | Custody Seal No.:  |  |  |  | Cooler Temperature(s) °C and Other Remarks: |  |  |  |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  |  |  |  |  | 1.6 °C                                      |  |  |  |

Ver 06/08/2021

Environment Testing,  
America

Ver: 06/08/2021

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-51318-1

Login Number: 51318

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Knoedler, Christine M

| Question  | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.  | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.   | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.   | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.  | N/A    |         |
| COC is present.   | True   |         |
| COC is filled out in ink and legible.   | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.  | True   |         |
| Containers are not broken or leaking.   | True   |         |
| Sample collection date/times are provided.  | True   |         |
| Appropriate sample containers are used.   | True   |         |
| Sample bottles are completely filled.   | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.  | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?   | True   |         |
| Sample Preservation Verified.   | N/A    |         |
| Residual Chlorine Checked.  | N/A    |         |
| Sample custody seals are intact.  | N/A    |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-55731-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
9/27/2021 4:33:10 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
|----|
| 1  |
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| 5  |
| 6  |
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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Amek Carter  
Project Manager  
9/27/2021 4:33:10 PM



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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

### Qualifiers

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

### Job ID: 410-55731-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-55731-1

##### Receipt

The samples were received on 9/20/2021 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

##### Receipt Exceptions

One 4oz soil jar container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 4847-Center (5) (410-55731-7). The container label lists 4847-east (5), while the COC lists 4847-Center (5).

##### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: 1044-Center (5) (410-55731-1), 649-Center (5) (410-55731-2), 1043-Center (5) (410-55731-3), 1248-Center (5) (410-55731-4), DUP-8 (410-55731-5) and 4847-Center (5) (410-55731-7). Elevated reporting limits (RLs) are provided.

Method 8260C: Internal standard (ISTD) response for t-Butyl alcohol-d10 for the following sample was outside acceptance criteria: 4847-West (5) (410-55731-8). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

### Client Sample ID: 1044-Center (5)

### Lab Sample ID: 410-55731-1

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Naphthalene          | 550    |           | 490 | 200  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene           | 14     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 75     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 130    |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 160    |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 98     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 97     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 75     |           | 24  | 5.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 79     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 990    |           | 2.0 | 0.81 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 649-Center (5)

### Lab Sample ID: 410-55731-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 37     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 92     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 83     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 98     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 48     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 98     |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 15     | J         | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 150    |           | 22  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 180    |           | 22  | 4.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 230    |           | 1.7 | 0.69 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1043-Center (5)

### Lab Sample ID: 410-55731-3

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 4.2    | J         | 20  | 4.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 100    |           | 20  | 4.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 23     |           | 1.7 | 0.67 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 1248-Center (5)

### Lab Sample ID: 410-55731-4

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 19     |           | 1.8 | 0.71 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: DUP-8

### Lab Sample ID: 410-55731-5

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 16     |           | 1.7 | 0.68 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 4847-East (5)

### Lab Sample ID: 410-55731-6

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 17     |           | 1.5 | 0.60 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 4847-Center (5)

### Lab Sample ID: 410-55731-7

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 12     |           | 1.5 | 0.59 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

**Client Sample ID: 4847-West (5)**

**Lab Sample ID: 410-55731-8**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Lead    | 18     |           | 1.2 | 0.48 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-55731-9**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 1044-Center (5)

Lab Sample ID: 410-55731-1

Date Collected: 09/16/21 10:35

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 68.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 490 | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| 1,2-Dichloroethane          | ND     |           | 490 | 59  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 490 | 49  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Toluene                     | ND     |           | 490 | 59  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Xylenes, Total              | ND     |           | 980 | 140 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Methyl tertiary butyl ether | ND     |           | 490 | 49  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Benzene                     | ND     |           | 490 | 49  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Naphthalene                 | 550    |           | 490 | 200 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 490 | 49  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Isopropylbenzene            | ND     |           | 490 | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| 1,2-Dibromoethane           | ND     |           | 490 | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:19 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Dibromofluoromethane (Surr)  | 110       |           | 50 - 141 | 09/22/21 10:31 | 09/24/21 14:19 | 50      |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 09/22/21 10:31 | 09/24/21 14:19 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 14     | J         | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Benzo[a]anthracene   | 75     |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Benzo[a]pyrene       | 130    |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Benzo[b]fluoranthene | 160    |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Benzo[g,h,i]perylene | 98     |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Chrysene             | 97     |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Fluorene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Phenanthrene         | 75     |           | 24 | 5.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Pyrene               | 79     |           | 24 | 4.8 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:08 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| Nitrobenzene-d5 (Surr)  | 62        |           | 32 - 97  | 09/23/21 08:56 | 09/24/21 08:08 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 09/23/21 08:56 | 09/24/21 08:08 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 990    |           | 2.0 | 0.81 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:34 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 31.3   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: 649-Center (5)

Lab Sample ID: 410-55731-2

Date Collected: 09/16/21 11:25

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 76.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 540 | 43  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| 1,2-Dichloroethane | ND     |           | 540 | 64  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 649-Center (5)

Lab Sample ID: 410-55731-2

Date Collected: 09/16/21 11:25

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 76.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 540      | 54  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Toluene                      | ND        |           | 540      | 64  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Xylenes, Total               | ND        |           | 1100     | 150 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 540      | 54  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Benzene                      | ND        |           | 540      | 54  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Naphthalene                  | ND        |           | 540      | 210 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| 1,2,4-Trimethylbenzene       | ND        |           | 540      | 54  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Isopropylbenzene             | ND        |           | 540      | 43  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| 1,2-Dibromoethane            | ND        |           | 540      | 43  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 |     |       |   | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 |     |       |   | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Dibromofluoromethane (Surr)  | 109       |           | 50 - 141 |     |       |   | 09/22/21 10:31 | 09/24/21 14:41 | 50      |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 |     |       |   | 09/22/21 10:31 | 09/24/21 14:41 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 37        |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Benzo[a]anthracene      | 92        |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Benzo[a]pyrene          | 83        |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Benzo[b]fluoranthene    | 98        |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Benzo[g,h,i]perylene    | 48        |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Chrysene                | 98        |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Fluorene                | 15 J      |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Phenanthrene            | 150       |           | 22       | 5.2 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Pyrene                  | 180       |           | 22       | 4.3 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 |     |       |   | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  |     |       |   | 09/23/21 08:56 | 09/24/21 08:30 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 |     |       |   | 09/23/21 08:56 | 09/24/21 08:30 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 230    |           | 1.7 | 0.69 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:37 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 23.3   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: 1043-Center (5)

Lab Sample ID: 410-55731-3

Date Collected: 09/16/21 12:20

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 81.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 470 | 38  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| 1,2-Dichloroethane     | ND     |           | 470 | 57  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| 1,3,5-Trimethylbenzene | ND     |           | 470 | 47  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Toluene                | ND     |           | 470 | 57  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 1043-Center (5)

Lab Sample ID: 410-55731-3

Date Collected: 09/16/21 12:20

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 81.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 940 | 130 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Methyl tertiary butyl ether | ND     |           | 470 | 47  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Benzene                     | ND     |           | 470 | 47  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Naphthalene                 | ND     |           | 470 | 190 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 470 | 47  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Isopropylbenzene            | ND     |           | 470 | 38  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| 1,2-Dibromoethane           | ND     |           | 470 | 38  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:03 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| 4-Bromofluorobenzene (Surr)  | 111       |           | 50 - 131 | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Dibromofluoromethane (Surr)  | 110       |           | 50 - 141 | 09/22/21 10:31 | 09/24/21 15:03 | 50      |
| Toluene-d8 (Surr)            | 109       |           | 52 - 141 | 09/22/21 10:31 | 09/24/21 15:03 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Benzo[a]anthracene   | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Benzo[a]pyrene       | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Benzo[b]fluoranthene | 4.2    | J         | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Chrysene             | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Fluorene             | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Phenanthrene         | 100    |           | 20 | 4.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Pyrene               | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 08:53 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 68        |           | 39 - 100 | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  | 09/23/21 08:56 | 09/24/21 08:53 | 1       |
| p-Terphenyl-d14 (Surr)  | 73        |           | 45 - 108 | 09/23/21 08:56 | 09/24/21 08:53 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 23     |           | 1.7 | 0.67 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 18.2   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: 1248-Center (5)

Lab Sample ID: 410-55731-4

Date Collected: 09/16/21 13:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 73.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 370 | 30  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| 1,2-Dichloroethane          | ND     |           | 370 | 45  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 370 | 37  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Toluene                     | ND     |           | 370 | 45  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Xylenes, Total              | ND     |           | 750 | 100 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Methyl tertiary butyl ether | ND     |           | 370 | 37  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 1248-Center (5)

Lab Sample ID: 410-55731-4

Date Collected: 09/16/21 13:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 73.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 370 | 37  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Naphthalene            | ND     |           | 370 | 150 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| 1,2,4-Trimethylbenzene | ND     |           | 370 | 37  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Isopropylbenzene       | ND     |           | 370 | 30  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| 1,2-Dibromoethane      | ND     |           | 370 | 30  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:25 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| 4-Bromofluorobenzene (Surr)  | 122       |           | 50 - 131 | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Dibromofluoromethane (Surr)  | 113       |           | 50 - 141 | 09/22/21 10:31 | 09/24/21 15:25 | 50      |
| Toluene-d8 (Surr)            | 114       |           | 52 - 141 | 09/22/21 10:31 | 09/24/21 15:25 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Benzo[a]anthracene   | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Benzo[a]pyrene       | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Benzo[b]fluoranthene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Chrysene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Fluorene             | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Phenanthrene         | ND     |           | 23 | 5.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Pyrene               | ND     |           | 23 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 09:16 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 82        |           | 39 - 100 | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  | 09/23/21 08:56 | 09/24/21 09:16 | 1       |
| p-Terphenyl-d14 (Surr)  | 91        |           | 45 - 108 | 09/23/21 08:56 | 09/24/21 09:16 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 19     |           | 1.8 | 0.71 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:44 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 27.0   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: DUP-8

Lab Sample ID: 410-55731-5

Date Collected: 09/16/21 00:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 70.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 390 | 31  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| 1,2-Dichloroethane          | ND     |           | 390 | 47  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 390 | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Toluene                     | ND     |           | 390 | 47  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Xylenes, Total              | ND     |           | 790 | 110 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Methyl tertiary butyl ether | ND     |           | 390 | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Benzene                     | ND     |           | 390 | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Naphthalene                 | ND     |           | 390 | 160 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: DUP-8

Lab Sample ID: 410-55731-5

Date Collected: 09/16/21 00:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 70.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | ND        |           | 390      | 39  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Isopropylbenzene             | ND        |           | 390      | 31  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| 1,2-Dibromoethane            | ND        |           | 390      | 31  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 54 - 135 |     |       |   | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| 4-Bromofluorobenzene (Surr)  | 114       |           | 50 - 131 |     |       |   | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 |     |       |   | 09/22/21 10:31 | 09/24/21 15:47 | 50      |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 |     |       |   | 09/22/21 10:31 | 09/24/21 15:47 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Benzo[a]anthracene      | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Benzo[a]pyrene          | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Chrysene                | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Fluorene                | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Phenanthrene            | ND        |           | 23       | 5.6 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Pyrene                  | ND        |           | 23       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 |     |       |   | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  |     |       |   | 09/23/21 08:56 | 09/24/21 22:04 | 1       |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 |     |       |   | 09/23/21 08:56 | 09/24/21 22:04 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 16     |           | 1.7 | 0.68 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:48 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 29.3   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: 4847-East (5)

Lab Sample ID: 410-55731-6

Date Collected: 09/16/21 13:45

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 84.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 5.0 | 0.40 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.59 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Toluene                     | ND     |           | 5.0 | 0.59 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Xylenes, Total              | ND     |           | 9.9 | 1.4  | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.0 | 0.50 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.50 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 2.0  | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.40 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 4847-East (5)

Lab Sample ID: 410-55731-6

Date Collected: 09/16/21 13:45

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 84.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 5.0      | 0.40 | ug/Kg | ✱ | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 |      |       |   | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 |      |       |   | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 |      |       |   | 09/22/21 10:46 | 09/23/21 18:38 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 |      |       |   | 09/22/21 10:46 | 09/23/21 18:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Benzo[a]anthracene      | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Benzo[a]pyrene          | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Benzo[b]fluoranthene    | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Benzo[g,h,i]perylene    | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Chrysene                | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Fluorene                | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Phenanthrene            | ND        |           | 20       | 4.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Pyrene                  | ND        |           | 20       | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 |     |       |   | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  |     |       |   | 09/23/21 08:56 | 09/24/21 22:27 | 1       |
| p-Terphenyl-d14 (Surr)  | 89        |           | 45 - 108 |     |       |   | 09/23/21 08:56 | 09/24/21 22:27 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 17     |           | 1.5 | 0.60 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:51 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.0   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: 4847-Center (5)

Lab Sample ID: 410-55731-7

Date Collected: 09/16/21 14:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 85.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 330 | 27  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| 1,2-Dichloroethane          | ND     |           | 330 | 40  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 330 | 33  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Toluene                     | ND     |           | 330 | 40  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Xylenes, Total              | ND     |           | 670 | 93  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Methyl tertiary butyl ether | ND     |           | 330 | 33  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Benzene                     | ND     |           | 330 | 33  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Naphthalene                 | ND     |           | 330 | 130 | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 330 | 33  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Isopropylbenzene            | ND     |           | 330 | 27  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| 1,2-Dibromoethane           | ND     |           | 330 | 27  | ug/Kg | ✱ | 09/22/21 10:31 | 09/24/21 16:09 | 50      |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 4847-Center (5)

Lab Sample ID: 410-55731-7

Date Collected: 09/16/21 14:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 85.6

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| 4-Bromofluorobenzene (Surr)  | 114       |           | 50 - 131 | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Dibromofluoromethane (Surr)  | 109       |           | 50 - 141 | 09/22/21 10:31 | 09/24/21 16:09 | 50      |
| Toluene-d8 (Surr)            | 110       |           | 52 - 141 | 09/22/21 10:31 | 09/24/21 16:09 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Chrysene             | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Fluorene             | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.6 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Pyrene               | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 22:49 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  | 09/23/21 08:56 | 09/24/21 22:49 | 1       |
| p-Terphenyl-d14 (Surr)  | 97        |           | 45 - 108 | 09/23/21 08:56 | 09/24/21 22:49 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 12     |           | 1.5 | 0.59 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 19:55 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.4   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: 4847-West (5)

Lab Sample ID: 410-55731-8

Date Collected: 09/16/21 15:15

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 88.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 6.4 | 0.51 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.4 | 0.76 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Toluene                     | ND     |           | 6.4 | 0.76 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.8  | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Benzene                     | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Naphthalene                 | ND     |           | 6.4 | 2.5  | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.4 | 0.64 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Isopropylbenzene            | ND     |           | 6.4 | 0.51 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| 1,2-Dibromoethane           | ND     |           | 6.4 | 0.51 | ug/Kg | ✱ | 09/22/21 10:46 | 09/27/21 14:26 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 117       |           | 54 - 135 | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 09/22/21 10:46 | 09/27/21 14:26 | 1       |
| Dibromofluoromethane (Surr)  | 107       |           | 50 - 141 | 09/22/21 10:46 | 09/27/21 14:26 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

Client Sample ID: 4847-West (5)

Lab Sample ID: 410-55731-8

Date Collected: 09/16/21 15:15

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 88.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 91        |           | 52 - 141 | 09/22/21 10:46 | 09/27/21 14:26 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Benzo[a]anthracene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Benzo[a]pyrene       | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Benzo[b]fluoranthene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Chrysene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Fluorene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Phenanthrene         | ND     |           | 19 | 4.5 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Pyrene               | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 09/23/21 08:56 | 09/24/21 23:12 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 09/23/21 08:56 | 09/24/21 23:12 | 1       |
| p-Terphenyl-d14 (Surr)  | 90        |           | 45 - 108 | 09/23/21 08:56 | 09/24/21 23:12 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 18     |           | 1.2 | 0.48 | mg/Kg | ✱ | 09/22/21 07:51 | 09/22/21 20:05 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.4   |           | 1.0 | 1.0 | %    |   |          | 09/21/21 20:52 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-55731-9

Date Collected: 09/16/21 00:00

Matrix: Water

Date Received: 09/20/21 17:15

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 09/22/21 13:56 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 09/22/21 13:56 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 09/22/21 13:56 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 09/22/21 13:56 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 09/22/21 13:56 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 09/22/21 13:56 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 09/22/21 13:56 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 09/22/21 13:56 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 09/22/21 13:56 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 09/22/21 13:56 | 1       |
| Isopropylbenzene            | ND     |           | 5.0 | 0.30 | ug/L |   |          | 09/22/21 13:56 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 80 - 120 |          | 09/22/21 13:56 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 80 - 120 |          | 09/22/21 13:56 | 1       |
| Dibromofluoromethane (Surr)  | 95        |           | 80 - 120 |          | 09/22/21 13:56 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 80 - 120 |          | 09/22/21 13:56 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-55731-1                        | 1044-Center (5)        | 111  | 96              | 110              | 105             |
| 410-55731-2                        | 649-Center (5)         | 111  | 92              | 109              | 101             |
| 410-55731-3                        | 1043-Center (5)        | 113  | 111             | 110              | 109             |
| 410-55731-4                        | 1248-Center (5)        | 116  | 122             | 113              | 114             |
| 410-55731-5                        | DUP-8                  | 106  | 114             | 106              | 106             |
| 410-55731-6                        | 4847-East (5)          | 111  | 91              | 104              | 95              |
| 410-55731-7                        | 4847-Center (5)        | 111  | 114             | 109              | 110             |
| 410-55731-8                        | 4847-West (5)          | 117  | 93              | 107              | 91              |
| LCS 410-174574/4                   | Lab Control Sample     | 104  | 93              | 102              | 96              |
| LCS 410-174985/4                   | Lab Control Sample     | 100  | 98              | 99               | 97              |
| LCS 410-175637/4                   | Lab Control Sample     | 102  | 94              | 105              | 94              |
| LCSD 410-174574/5                  | Lab Control Sample Dup | 101  | 94              | 101              | 97              |
| LCSD 410-174985/5                  | Lab Control Sample Dup | 101  | 98              | 98               | 97              |
| LCSD 410-175637/5                  | Lab Control Sample Dup | 103  | 94              | 105              | 94              |
| MB 410-174574/7                    | Method Blank           | 104  | 92              | 104              | 94              |
| MB 410-174985/7                    | Method Blank           | 99   | 97              | 95               | 97              |
| MB 410-175637/7                    | Method Blank           | 105  | 90              | 106              | 92              |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-55731-9                        | Trip Blank             | 98   | 98              | 95               | 102             |
| LCS 410-174114/4                   | Lab Control Sample     | 100  | 101             | 95               | 103             |
| LCSD 410-174114/5                  | Lab Control Sample Dup | 102  | 101             | 96               | 103             |
| MB 410-174114/6                    | Method Blank           | 100  | 99              | 96               | 103             |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|---------------|------------------|--|----------------|--------------------|
|               |                  | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-55731-1   | 1044-Center (5)  | 74   | 62             | 83                 |
| 410-55731-2   | 649-Center (5)   | 74   | 63             | 83                 |
| 410-55731-3   | 1043-Center (5)  | 68   | 61             | 73                 |
| 410-55731-4   | 1248-Center (5)  | 82   | 74             | 91                 |

## Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-55731-1

Project/Site: PBF Logistics

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-55731-5        | DUP-8              | 79   | 68             | 87                 |
| 410-55731-6        | 4847-East (5)      | 80   | 74             | 89                 |
| 410-55731-7        | 4847-Center (5)    | 85   | 74             | 97                 |
| 410-55731-8        | 4847-West (5)      | 80   | 72             | 90                 |
| LCS 410-174459/2-A | Lab Control Sample | 75   | 75             | 88                 |
| MB 410-174459/1-A  | Method Blank       | 86   | 83             | 99                 |

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-174574/7

Matrix: Solid

Analysis Batch: 174574

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/23/21 13:30 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/23/21 13:30 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 09/23/21 13:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92           |              | 50 - 131 |          | 09/23/21 13:30 | 1       |
| Dibromofluoromethane (Surr)  | 104          |              | 50 - 141 |          | 09/23/21 13:30 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 09/23/21 13:30 | 1       |

Lab Sample ID: LCS 410-174574/4

Matrix: Solid

Analysis Batch: 174574

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.3       |               | ug/Kg |   | 92   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.2       |               | ug/Kg |   | 101  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.4       |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                     | 20.0        | 18.0       |               | ug/Kg |   | 90   | 80 - 120     |
| Xylenes, Total              | 60.0        | 55.9       |               | ug/Kg |   | 93   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.3       |               | ug/Kg |   | 92   | 72 - 120     |
| Benzene                     | 20.0        | 19.0       |               | ug/Kg |   | 95   | 80 - 120     |
| Naphthalene                 | 20.0        | 17.4       |               | ug/Kg |   | 87   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.5       |               | ug/Kg |   | 88   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 18.5       |               | ug/Kg |   | 92   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.7       |               | ug/Kg |   | 98   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 93            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 96            |               | 52 - 141 |

Lab Sample ID: LCSD 410-174574/5

Matrix: Solid

Analysis Batch: 174574

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 17.4        |                | ug/Kg |   | 87   | 78 - 120     | 5   | 30        |
| 1,2-Dichloroethane | 20.0        | 19.1        |                | ug/Kg |   | 96   | 71 - 128     | 6   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-174574/5

Matrix: Solid

Analysis Batch: 174574

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 16.6        |                | ug/Kg |   | 83   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 17.4        |                | ug/Kg |   | 87   | 80 - 120     | 3   | 30        |
| Xylenes, Total              | 60.0        | 53.9        |                | ug/Kg |   | 90   | 75 - 120     | 4   | 30        |
| Methyl tertiary butyl ether | 20.0        | 17.0        |                | ug/Kg |   | 85   | 72 - 120     | 7   | 30        |
| Benzene                     | 20.0        | 18.4        |                | ug/Kg |   | 92   | 80 - 120     | 3   | 30        |
| Naphthalene                 | 20.0        | 15.0        |                | ug/Kg |   | 75   | 48 - 130     | 15  | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.5        |                | ug/Kg |   | 83   | 73 - 120     | 6   | 30        |
| Isopropylbenzene            | 20.0        | 17.5        |                | ug/Kg |   | 87   | 77 - 120     | 5   | 30        |
| 1,2-Dibromoethane           | 20.0        | 17.9        |                | ug/Kg |   | 90   | 76 - 120     | 9   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-174985/7

Matrix: Solid

Analysis Batch: 174985

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| Benzene                     | ND        |              | 250 | 25  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| Naphthalene                 | ND        |              | 250 | 100 | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| Isopropylbenzene            | ND        |              | 250 | 20  | ug/Kg |   |          | 09/24/21 11:53 | 50      |
| 1,2-Dibromoethane           | ND        |              | 250 | 20  | ug/Kg |   |          | 09/24/21 11:53 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 54 - 135 |          | 09/24/21 11:53 | 50      |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 09/24/21 11:53 | 50      |
| Dibromofluoromethane (Surr)  | 95           |              | 50 - 141 |          | 09/24/21 11:53 | 50      |
| Toluene-d8 (Surr)            | 97           |              | 52 - 141 |          | 09/24/21 11:53 | 50      |

Lab Sample ID: LCS 410-174985/4

Matrix: Solid

Analysis Batch: 174985

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 1000        | 1010       |               | ug/Kg |   | 101  | 78 - 120     |
| 1,2-Dichloroethane     | 1000        | 1060       |               | ug/Kg |   | 106  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 1010       |               | ug/Kg |   | 101  | 73 - 120     |
| Toluene                | 1000        | 1020       |               | ug/Kg |   | 102  | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-174985/4

Matrix: Solid

Analysis Batch: 174985

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 3000        | 3040       |               | ug/Kg |   | 101  | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 1030       |               | ug/Kg |   | 103  | 72 - 120     |
| Benzene                     | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| Naphthalene                 | 1000        | 998        |               | ug/Kg |   | 100  | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 1030       |               | ug/Kg |   | 103  | 73 - 120     |
| Isopropylbenzene            | 1000        | 1040       |               | ug/Kg |   | 104  | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 1030       |               | ug/Kg |   | 103  | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-174985/5

Matrix: Solid

Analysis Batch: 174985

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 1020        |                | ug/Kg |   | 102  | 78 - 120     | 0   | 30        |
| 1,2-Dichloroethane          | 1000        | 1060        |                | ug/Kg |   | 106  | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 1020        |                | ug/Kg |   | 102  | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 1010        |                | ug/Kg |   | 101  | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 3030        |                | ug/Kg |   | 101  | 75 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 1000        | 1020        |                | ug/Kg |   | 102  | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 1030        |                | ug/Kg |   | 103  | 80 - 120     | 0   | 30        |
| Naphthalene                 | 1000        | 988         |                | ug/Kg |   | 99   | 48 - 130     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 1000        | 1030        |                | ug/Kg |   | 103  | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 1000        | 1050        |                | ug/Kg |   | 105  | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 1000        | 1030        |                | ug/Kg |   | 103  | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 98             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-175637/7

Matrix: Solid

Analysis Batch: 175637

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/27/21 12:10 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-175637/7

Matrix: Solid

Analysis Batch: 175637

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| Naphthalene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| Isopropylbenzene       | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/27/21 12:10 | 1       |
| 1,2-Dibromoethane      | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/27/21 12:10 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 09/27/21 12:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90           |              | 50 - 131 |          | 09/27/21 12:10 | 1       |
| Dibromofluoromethane (Surr)  | 106          |              | 50 - 141 |          | 09/27/21 12:10 | 1       |
| Toluene-d8 (Surr)            | 92           |              | 52 - 141 |          | 09/27/21 12:10 | 1       |

Lab Sample ID: LCS 410-175637/4

Matrix: Solid

Analysis Batch: 175637

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 18.5       |               | ug/Kg |   | 92   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 21.4       |               | ug/Kg |   | 107  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.5       |               | ug/Kg |   | 88   | 73 - 120     |
| Toluene                     | 20.0        | 18.3       |               | ug/Kg |   | 91   | 80 - 120     |
| Xylenes, Total              | 60.0        | 57.1       |               | ug/Kg |   | 95   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.2       |               | ug/Kg |   | 101  | 72 - 120     |
| Benzene                     | 20.0        | 20.1       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 20.0        | 18.0       |               | ug/Kg |   | 90   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.9       |               | ug/Kg |   | 90   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 19.3       |               | ug/Kg |   | 97   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.9       |               | ug/Kg |   | 99   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 105           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 94            |               | 52 - 141 |

Lab Sample ID: LCSD 410-175637/5

Matrix: Solid

Analysis Batch: 175637

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 17.9        |                | ug/Kg |   | 89   | 78 - 120     | 3   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.9        |                | ug/Kg |   | 105  | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.4        |                | ug/Kg |   | 87   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 17.7        |                | ug/Kg |   | 88   | 80 - 120     | 3   | 30        |
| Xylenes, Total              | 60.0        | 55.8        |                | ug/Kg |   | 93   | 75 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.6        |                | ug/Kg |   | 98   | 72 - 120     | 3   | 30        |
| Benzene                     | 20.0        | 19.3        |                | ug/Kg |   | 96   | 80 - 120     | 4   | 30        |
| Naphthalene                 | 20.0        | 18.0        |                | ug/Kg |   | 90   | 48 - 130     | 0   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-175637/5

Matrix: Solid

Analysis Batch: 175637

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene | 20.0        | 17.9        |                | ug/Kg |   | 89   | 73 - 120     | 0   | 30        |
| Isopropylbenzene       | 20.0        | 18.5        |                | ug/Kg |   | 92   | 77 - 120     | 5   | 30        |
| 1,2-Dibromoethane      | 20.0        | 19.4        |                | ug/Kg |   | 97   | 76 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 105            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 94             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-174114/6

Matrix: Water

Analysis Batch: 174114

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND        |              | 1.0 | 0.30 | ug/L |   |          | 09/22/21 12:49 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 09/22/21 12:49 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 09/22/21 12:49 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 09/22/21 12:49 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 09/22/21 12:49 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 09/22/21 12:49 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 09/22/21 12:49 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 09/22/21 12:49 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 09/22/21 12:49 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 09/22/21 12:49 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.30 | ug/L |   |          | 09/22/21 12:49 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 80 - 120 |          | 09/22/21 12:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99           |              | 80 - 120 |          | 09/22/21 12:49 | 1       |
| Dibromofluoromethane (Surr)  | 96           |              | 80 - 120 |          | 09/22/21 12:49 | 1       |
| Toluene-d8 (Surr)            | 103          |              | 80 - 120 |          | 09/22/21 12:49 | 1       |

Lab Sample ID: LCS 410-174114/4

Matrix: Water

Analysis Batch: 174114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromoethane           | 20.0        | 19.1       |               | ug/L |   | 95   | 77 - 120     |
| Ethylbenzene                | 20.0        | 22.8       |               | ug/L |   | 114  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.2       |               | ug/L |   | 96   | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 22.2       |               | ug/L |   | 111  | 75 - 120     |
| Toluene                     | 20.0        | 19.9       |               | ug/L |   | 99   | 80 - 120     |
| Xylenes, Total              | 60.0        | 60.6       |               | ug/L |   | 101  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 16.4       |               | ug/L |   | 82   | 69 - 122     |
| Benzene                     | 20.0        | 20.5       |               | ug/L |   | 102  | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-174114/4

Matrix: Water

Analysis Batch: 174114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Naphthalene            | 20.0        | 19.0       |               | ug/L |   | 95   | 53 - 124     |
| 1,2,4-Trimethylbenzene | 20.0        | 22.3       |               | ug/L |   | 111  | 75 - 120     |
| Isopropylbenzene       | 20.0        | 19.4       |               | ug/L |   | 97   | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 95            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 103           |               | 80 - 120 |

Lab Sample ID: LCSD 410-174114/5

Matrix: Water

Analysis Batch: 174114

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| 1,2-Dibromoethane           | 20.0        | 19.0        |                | ug/L |   | 95   | 77 - 120     | 0   | 30    |
| Ethylbenzene                | 20.0        | 22.5        |                | ug/L |   | 113  | 80 - 120     | 1   | 30    |
| 1,2-Dichloroethane          | 20.0        | 19.6        |                | ug/L |   | 98   | 73 - 124     | 2   | 30    |
| 1,3,5-Trimethylbenzene      | 20.0        | 22.0        |                | ug/L |   | 110  | 75 - 120     | 1   | 30    |
| Toluene                     | 20.0        | 19.6        |                | ug/L |   | 98   | 80 - 120     | 1   | 30    |
| Xylenes, Total              | 60.0        | 59.4        |                | ug/L |   | 99   | 80 - 120     | 2   | 30    |
| Methyl tertiary butyl ether | 20.0        | 20.3        |                | ug/L |   | 102  | 69 - 122     | 21  | 30    |
| Benzene                     | 20.0        | 20.7        |                | ug/L |   | 103  | 80 - 120     | 1   | 30    |
| Naphthalene                 | 20.0        | 21.0        |                | ug/L |   | 105  | 53 - 124     | 10  | 30    |
| 1,2,4-Trimethylbenzene      | 20.0        | 22.2        |                | ug/L |   | 111  | 75 - 120     | 0   | 30    |
| Isopropylbenzene            | 20.0        | 19.5        |                | ug/L |   | 97   | 80 - 120     | 0   | 30    |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 96             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 103            |                | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-174459/1-A

Matrix: Solid

Analysis Batch: 174838

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174459

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-174459/1-A

Matrix: Solid

Analysis Batch: 174838

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174459

| Analyte                 | MB Result | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND        |              | 17       | 3.3 | ug/Kg |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Surrogate               | %Recovery | MB Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 86        |              | 39 - 100 |     |       |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| Nitrobenzene-d5 (Surr)  | 83        |              | 32 - 97  |     |       |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |
| p-Terphenyl-d14 (Surr)  | 99        |              | 45 - 108 |     |       |   | 09/23/21 08:56 | 09/23/21 20:59 | 1       |

Lab Sample ID: LCS 410-174459/2-A

Matrix: Solid

Analysis Batch: 174838

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174459

| Analyte                 | Spike Added | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------|-------------|---------------|---------------|-------|---|------|--------------|
| Anthracene              | 1670        | 1420          |               | ug/Kg |   | 85   | 75 - 120     |
| Benzo[a]anthracene      | 1670        | 1460          |               | ug/Kg |   | 87   | 73 - 120     |
| Benzo[a]pyrene          | 1670        | 1480          |               | ug/Kg |   | 89   | 80 - 123     |
| Benzo[b]fluoranthene    | 1670        | 1360          |               | ug/Kg |   | 82   | 63 - 120     |
| Benzo[g,h,i]perylene    | 1670        | 1470          |               | ug/Kg |   | 88   | 77 - 120     |
| Chrysene                | 1670        | 1330          |               | ug/Kg |   | 80   | 66 - 120     |
| Fluorene                | 1670        | 1320          |               | ug/Kg |   | 79   | 68 - 120     |
| Phenanthrene            | 1670        | 1340          |               | ug/Kg |   | 81   | 74 - 120     |
| Pyrene                  | 1670        | 1310          |               | ug/Kg |   | 79   | 70 - 120     |
| Surrogate               | %Recovery   | LCS Qualifier | Limits        |       |   |      |              |
| 2-Fluorobiphenyl (Surr) | 75          |               | 39 - 100      |       |   |      |              |
| Nitrobenzene-d5 (Surr)  | 75          |               | 32 - 97       |       |   |      |              |
| p-Terphenyl-d14 (Surr)  | 88          |               | 45 - 108      |       |   |      |              |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-174031/1-A

Matrix: Solid

Analysis Batch: 174409

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 174031

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 09/22/21 07:51 | 09/22/21 19:07 | 1       |

Lab Sample ID: LCS 410-174031/2-A

Matrix: Solid

Analysis Batch: 174409

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 174031

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.61       |               | mg/Kg |   | 112  | 80 - 120     |

Lab Sample ID: LCSD 410-174031/3-A

Matrix: Solid

Analysis Batch: 174409

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 174031

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Lead    | 5.00        | 5.62        |                | mg/Kg |   | 112  | 80 - 120     | 0   | 20        |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

### GC/MS VOA

#### Analysis Batch: 174114

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-55731-9       | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-174114/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-174114/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-174114/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

#### Prep Batch: 174133

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-55731-1   | 1044-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-55731-2   | 649-Center (5)   | Total/NA  | Solid  | 5035   |            |
| 410-55731-3   | 1043-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-55731-4   | 1248-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-55731-5   | DUP-8            | Total/NA  | Solid  | 5035   |            |
| 410-55731-7   | 4847-Center (5)  | Total/NA  | Solid  | 5035   |            |

#### Prep Batch: 174140

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-55731-6   | 4847-East (5)    | Total/NA  | Solid  | 5035   |            |
| 410-55731-8   | 4847-West (5)    | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 174574

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-55731-6       | 4847-East (5)          | Total/NA  | Solid  | 8260C  | 174140     |
| MB 410-174574/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-174574/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-174574/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 174985

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-55731-1       | 1044-Center (5)        | Total/NA  | Solid  | 8260C  | 174133     |
| 410-55731-2       | 649-Center (5)         | Total/NA  | Solid  | 8260C  | 174133     |
| 410-55731-3       | 1043-Center (5)        | Total/NA  | Solid  | 8260C  | 174133     |
| 410-55731-4       | 1248-Center (5)        | Total/NA  | Solid  | 8260C  | 174133     |
| 410-55731-5       | DUP-8                  | Total/NA  | Solid  | 8260C  | 174133     |
| 410-55731-7       | 4847-Center (5)        | Total/NA  | Solid  | 8260C  | 174133     |
| MB 410-174985/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-174985/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-174985/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 175637

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-55731-8       | 4847-West (5)          | Total/NA  | Solid  | 8260C  | 174140     |
| MB 410-175637/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-175637/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-175637/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 174459

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-55731-1   | 1044-Center (5)  | Total/NA  | Solid  | 3546   |            |
| 410-55731-2   | 649-Center (5)   | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 174459 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-55731-3        | 1043-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-55731-4        | 1248-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-55731-5        | DUP-8              | Total/NA  | Solid  | 3546   |            |
| 410-55731-6        | 4847-East (5)      | Total/NA  | Solid  | 3546   |            |
| 410-55731-7        | 4847-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-55731-8        | 4847-West (5)      | Total/NA  | Solid  | 3546   |            |
| MB 410-174459/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-174459/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 174838

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-174459/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 174459     |
| LCS 410-174459/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 174459     |

### Analysis Batch: 174870

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-55731-1   | 1044-Center (5)  | Total/NA  | Solid  | 8270D  | 174459     |
| 410-55731-2   | 649-Center (5)   | Total/NA  | Solid  | 8270D  | 174459     |
| 410-55731-3   | 1043-Center (5)  | Total/NA  | Solid  | 8270D  | 174459     |
| 410-55731-4   | 1248-Center (5)  | Total/NA  | Solid  | 8270D  | 174459     |

### Analysis Batch: 175105

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-55731-5   | DUP-8            | Total/NA  | Solid  | 8270D  | 174459     |
| 410-55731-6   | 4847-East (5)    | Total/NA  | Solid  | 8270D  | 174459     |
| 410-55731-7   | 4847-Center (5)  | Total/NA  | Solid  | 8270D  | 174459     |
| 410-55731-8   | 4847-West (5)    | Total/NA  | Solid  | 8270D  | 174459     |

## Metals

### Prep Batch: 174031

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 410-55731-1         | 1044-Center (5)        | Total/NA  | Solid  | 3050B  |            |
| 410-55731-2         | 649-Center (5)         | Total/NA  | Solid  | 3050B  |            |
| 410-55731-3         | 1043-Center (5)        | Total/NA  | Solid  | 3050B  |            |
| 410-55731-4         | 1248-Center (5)        | Total/NA  | Solid  | 3050B  |            |
| 410-55731-5         | DUP-8                  | Total/NA  | Solid  | 3050B  |            |
| 410-55731-6         | 4847-East (5)          | Total/NA  | Solid  | 3050B  |            |
| 410-55731-7         | 4847-Center (5)        | Total/NA  | Solid  | 3050B  |            |
| 410-55731-8         | 4847-West (5)          | Total/NA  | Solid  | 3050B  |            |
| MB 410-174031/1-A   | Method Blank           | Total/NA  | Solid  | 3050B  |            |
| LCS 410-174031/2-A  | Lab Control Sample     | Total/NA  | Solid  | 3050B  |            |
| LCSD 410-174031/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 3050B  |            |

### Analysis Batch: 174409

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-55731-1   | 1044-Center (5)  | Total/NA  | Solid  | 6010C  | 174031     |
| 410-55731-2   | 649-Center (5)   | Total/NA  | Solid  | 6010C  | 174031     |
| 410-55731-3   | 1043-Center (5)  | Total/NA  | Solid  | 6010C  | 174031     |
| 410-55731-4   | 1248-Center (5)  | Total/NA  | Solid  | 6010C  | 174031     |
| 410-55731-5   | DUP-8            | Total/NA  | Solid  | 6010C  | 174031     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

### Metals (Continued)

#### Analysis Batch: 174409 (Continued)

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 410-55731-6         | 4847-East (5)          | Total/NA  | Solid  | 6010C  | 174031     |
| 410-55731-7         | 4847-Center (5)        | Total/NA  | Solid  | 6010C  | 174031     |
| 410-55731-8         | 4847-West (5)          | Total/NA  | Solid  | 6010C  | 174031     |
| MB 410-174031/1-A   | Method Blank           | Total/NA  | Solid  | 6010C  | 174031     |
| LCS 410-174031/2-A  | Lab Control Sample     | Total/NA  | Solid  | 6010C  | 174031     |
| LCSD 410-174031/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 6010C  | 174031     |

### General Chemistry

#### Analysis Batch: 173933

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-55731-1   | 1044-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-55731-2   | 649-Center (5)   | Total/NA  | Solid  | Moisture |            |
| 410-55731-3   | 1043-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-55731-4   | 1248-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-55731-5   | DUP-8            | Total/NA  | Solid  | Moisture |            |
| 410-55731-6   | 4847-East (5)    | Total/NA  | Solid  | Moisture |            |
| 410-55731-7   | 4847-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-55731-8   | 4847-West (5)    | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

**Client Sample ID: 1044-Center (5)**

**Lab Sample ID: 410-55731-1**

Date Collected: 09/16/21 10:35

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

**Client Sample ID: 1044-Center (5)**

**Lab Sample ID: 410-55731-1**

Date Collected: 09/16/21 10:35

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 68.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174133       | 09/22/21 10:31       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 174985       | 09/24/21 14:19       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 174870       | 09/24/21 08:08       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:34       | XQY5    | ELLE |

**Client Sample ID: 649-Center (5)**

**Lab Sample ID: 410-55731-2**

Date Collected: 09/16/21 11:25

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

**Client Sample ID: 649-Center (5)**

**Lab Sample ID: 410-55731-2**

Date Collected: 09/16/21 11:25

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 76.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174133       | 09/22/21 10:31       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 174985       | 09/24/21 14:41       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 174870       | 09/24/21 08:30       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:37       | XQY5    | ELLE |

**Client Sample ID: 1043-Center (5)**

**Lab Sample ID: 410-55731-3**

Date Collected: 09/16/21 12:20

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Client Sample ID: 1043-Center (5)

## Lab Sample ID: 410-55731-3

Date Collected: 09/16/21 12:20

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 81.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174133       | 09/22/21 10:31       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 174985       | 09/24/21 15:03       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 174870       | 09/24/21 08:53       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:41       | XQY5    | ELLE |

## Client Sample ID: 1248-Center (5)

## Lab Sample ID: 410-55731-4

Date Collected: 09/16/21 13:00

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

## Client Sample ID: 1248-Center (5)

## Lab Sample ID: 410-55731-4

Date Collected: 09/16/21 13:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 73.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174133       | 09/22/21 10:31       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 174985       | 09/24/21 15:25       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 174870       | 09/24/21 09:16       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:44       | XQY5    | ELLE |

## Client Sample ID: DUP-8

## Lab Sample ID: 410-55731-5

Date Collected: 09/16/21 00:00

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

## Client Sample ID: DUP-8

## Lab Sample ID: 410-55731-5

Date Collected: 09/16/21 00:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 70.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174133       | 09/22/21 10:31       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 174985       | 09/24/21 15:47       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 175105       | 09/24/21 22:04       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:48       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

**Client Sample ID: 4847-East (5)**

**Lab Sample ID: 410-55731-6**

Date Collected: 09/16/21 13:45

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

**Client Sample ID: 4847-East (5)**

**Lab Sample ID: 410-55731-6**

Date Collected: 09/16/21 13:45

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 84.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174140       | 09/22/21 10:46       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 174574       | 09/23/21 18:38       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 175105       | 09/24/21 22:27       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:51       | XQY5    | ELLE |

**Client Sample ID: 4847-Center (5)**

**Lab Sample ID: 410-55731-7**

Date Collected: 09/16/21 14:00

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

**Client Sample ID: 4847-Center (5)**

**Lab Sample ID: 410-55731-7**

Date Collected: 09/16/21 14:00

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 85.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174133       | 09/22/21 10:31       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 174985       | 09/24/21 16:09       | SWV2    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 175105       | 09/24/21 22:49       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 19:55       | XQY5    | ELLE |

**Client Sample ID: 4847-West (5)**

**Lab Sample ID: 410-55731-8**

Date Collected: 09/16/21 15:15

Matrix: Solid

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 173933       | 09/21/21 20:52       | OEL4    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

## Client Sample ID: 4847-West (5)

## Lab Sample ID: 410-55731-8

Date Collected: 09/16/21 15:15

Matrix: Solid

Date Received: 09/20/21 17:15

Percent Solids: 88.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 174140       | 09/22/21 10:46       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 175637       | 09/27/21 14:26       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 174459       | 09/23/21 08:56       | U9KU    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 175105       | 09/24/21 23:12       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 174031       | 09/22/21 07:51       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 174409       | 09/22/21 20:05       | XQY5    | ELLE |

## Client Sample ID: Trip Blank

## Lab Sample ID: 410-55731-9

Date Collected: 09/16/21 00:00

Matrix: Water

Date Received: 09/20/21 17:15

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 174114       | 09/22/21 13:56       | MX6     | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-55731-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-55731-1   | 1044-Center (5)  | Solid  | 09/16/21 10:35 | 09/20/21 17:15 |
| 410-55731-2   | 649-Center (5)   | Solid  | 09/16/21 11:25 | 09/20/21 17:15 |
| 410-55731-3   | 1043-Center (5)  | Solid  | 09/16/21 12:20 | 09/20/21 17:15 |
| 410-55731-4   | 1248-Center (5)  | Solid  | 09/16/21 13:00 | 09/20/21 17:15 |
| 410-55731-5   | DUP-8            | Solid  | 09/16/21 00:00 | 09/20/21 17:15 |
| 410-55731-6   | 4847-East (5)    | Solid  | 09/16/21 13:45 | 09/20/21 17:15 |
| 410-55731-7   | 4847-Center (5)  | Solid  | 09/16/21 14:00 | 09/20/21 17:15 |
| 410-55731-8   | 4847-West (5)    | Solid  | 09/16/21 15:15 | 09/20/21 17:15 |
| 410-55731-9   | Trip Blank       | Water  | 09/16/21 00:00 | 09/20/21 17:15 |

**, LLC**

## Chain of Custody Record



Environment Testing  
America

410-55731 Chain of Custody

[illegible]

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-55731-1

Login Number: 55731

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

| Question  | Answer | Comment                             |
|---|--------|-------------------------------------|
| The cooler's custody seal is intact.  | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.    | True   |                                     |
| Samples were received on ice.   | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).        | True   |                                     |
| Cooler Temperature is recorded.   | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen). | N/A    |                                     |
| WV: Container Temperature is recorded.  | N/A    |                                     |
| COC is present.   | True   |                                     |
| COC is filled out in ink and legible.   | True   |                                     |
| COC is filled out with all pertinent information.                                 | True   |                                     |
| There are no discrepancies between the containers received and the COC.           | False  | Refer to Job Narrative for details. |
| Sample containers have legible labels.  | True   |                                     |
| Containers are not broken or leaking.   | True   |                                     |
| Sample collection date/times are provided.  | True   |                                     |
| Appropriate sample containers are used.   | True   |                                     |
| Sample bottles are completely filled.   | True   |                                     |
| There is sufficient vol. for all requested analyses.                              | True   |                                     |
| Is the Field Sampler's name present on COC?                                       | True   |                                     |
| Sample custody seals are intact.  | True   |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-56522-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
10/1/2021 5:22:35 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

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results through  
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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Amek Carter  
Project Manager  
10/1/2021 5:22:35 PM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |
| S1+       | Surrogate recovery exceeds control limits, high biased.  |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1+       | Surrogate recovery exceeds control limits, high biased.  |

#### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Job ID: 410-56522-1**

**Laboratory: Eurofins Lancaster Laboratories Env, LLC**

### Narrative

#### Job Narrative 410-56522-1

#### Receipt

The samples were received on 9/24/2021 7:31 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 2040-Center (5) (410-56522-2). The container labels list time of 09:14, while the COC lists time of 09:15. The collection time was logged per the COC.

#### GC/MS VOA

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: 7550-P4 (3) (410-56522-13). Elevated reporting limits (RLs) are provided.

Method 8260C: Surrogate recovery for the following sample was outside control limits: 7550-P1 (3) (410-56522-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

Method 8270D: Surrogate recovery for the following sample was outside acceptance limits: DUP-9 (410-56522-16). The was contacted and the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Client Sample ID: 4847-P5 (3)

### Lab Sample ID: 410-56522-1

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Lead    | 12     |           | 1.8 | 0.71 | mg/Kg | 1   |     | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2040-Center (5)

### Lab Sample ID: 410-56522-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Benzo[a]anthracene   | 17     | J         | 26  | 5.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 17     | J         | 26  | 5.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 18     | J         | 26  | 5.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 8.6    | J         | 26  | 5.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Chrysene             | 35     |           | 26  | 5.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 17     | J         | 26  | 6.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Pyrene               | 22     | J         | 26  | 5.1  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Lead                 | 24     |           | 2.2 | 0.86 | mg/Kg | 1   |     | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 2045-Center (5)

### Lab Sample ID: 410-56522-3

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Phenanthrene | 7.4    | J         | 25  | 5.9  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Lead         | 6.7    |           | 1.9 | 0.74 | mg/Kg | 1   |     | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 941-Center (5)

### Lab Sample ID: 410-56522-4

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|------|-------|-----|-----|---|--------|-----------|
| Anthracene           | 45000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 49000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 35000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 38000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 17000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Chrysene             | 41000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Fluorene             | 24000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 150000 |           | 1100 | 270  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Pyrene               | 89000  |           | 1100 | 220  | ug/Kg | 50  |     | ✱ | 8270D  | Total/NA  |
| Lead                 | 560    |           | 1.9  | 0.75 | mg/Kg | 1   |     | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-Center (5)

### Lab Sample ID: 410-56522-5

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 2.3    | J         | 7.3 | 0.73 | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.8    | J         | 7.3 | 0.73 | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Anthracene             | 84     |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 190    |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 200    |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 240    |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 160    |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Chrysene               | 230    |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Fluorene               | 54     |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 320    |           | 27  | 6.5  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 410    |           | 27  | 5.4  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Lead                   | 88     |           | 1.9 | 0.75 | mg/Kg | 1   |     | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Client Sample ID: 7550-P2 (3)

### Lab Sample ID: 410-56522-6

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 5.8    | J         | 7.0 | 0.70 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 1.3    | J         | 7.0 | 0.84 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 4.2    | J         | 14  | 2.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 1.1    | J         | 7.0 | 0.70 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 4.8    | J         | 7.0 | 0.70 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 400    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 1700   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 1600   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 2100   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 1100   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 1600   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 130    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 1300   |           | 23  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 2500   |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 170    |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-P1 (3)

### Lab Sample ID: 410-56522-7

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 5.2    | J         | 9.2 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 230    |           | 9.2 | 0.92 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 12     |           | 9.2 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 99     |           | 18  | 2.6  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 2.9    | J         | 9.2 | 0.92 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 54     |           | 9.2 | 3.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 350    |           | 9.2 | 0.92 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Isopropylbenzene       | 5.1    | J         | 9.2 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2-Dibromoethane      | 0.89   | J         | 9.2 | 0.73 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 230    |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 970    |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 1200   |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 1300   |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 840    |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 920    |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 93     |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 780    |           | 30  | 7.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1200   |           | 30  | 5.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 690    |           | 2.4 | 0.96 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-P7 (3)

### Lab Sample ID: 410-56522-8

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 4.1    | J         | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 2.2    | J         | 7.5 | 0.90 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 3.7    | J         | 15  | 2.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 1.9    | J         | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 3.9    | J         | 7.5 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 32     |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 110    |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 120    |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 140    |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 98     |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Client Sample ID: 7550-P7 (3) (Continued)

Lab Sample ID: 410-56522-8

| Analyte      | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Chrysene     | 110    |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene     | 15     | J         | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene | 170    |           | 27  | 6.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 190    |           | 27  | 5.4  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead         | 85     |           | 2.1 | 0.82 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-P6 (3)

Lab Sample ID: 410-56522-9

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 3.8    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 1.7    | J         | 9.6 | 1.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 0.98   | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 6.2    | J         | 9.6 | 3.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 4.3    | J         | 9.6 | 0.96 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 230    |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 680    |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 480    |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 680    |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 300    |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 650    |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 54     |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 790    |           | 26  | 6.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1500   |           | 26  | 5.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 87     |           | 2.2 | 0.90 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-P3 (3)

Lab Sample ID: 410-56522-10

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene              | 0.77   | J         | 6.2 | 0.75 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene              | 0.74   | J         | 6.2 | 0.62 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene           | 400    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 1600   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 1600   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 2000   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 1100   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 1600   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 190    |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 1200   |           | 21  | 5.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 2600   |           | 21  | 4.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 48     |           | 1.8 | 0.72 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: UNK-ST-W (3)

Lab Sample ID: 410-56522-11

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 3.2    | J         | 8.4 | 0.84 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 2.1    | J         | 8.4 | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 3.0    | J         | 17  | 2.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 1.5    | J         | 8.4 | 0.84 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 2.3    | J         | 8.4 | 0.84 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 210    |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 1000   |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 770    |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Client Sample ID: UNK-ST-W (3) (Continued)

Lab Sample ID: 410-56522-11

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[b]fluoranthene | 1100   |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 500    |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 1100   |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 54     |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 630    |           | 27  | 6.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 2500   |           | 27  | 5.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 120    |           | 2.3 | 0.93 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: UNK-ST-E (3)

Lab Sample ID: 410-56522-12

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene           | 1.1    | J         | 5.8 | 0.47 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 6.9    |           | 5.8 | 0.58 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 5.7    | J         | 5.8 | 0.70 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 11     | J         | 12  | 1.6  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 4.1    | J         | 5.8 | 0.58 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 9.0    |           | 5.8 | 2.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 4.9    | J         | 5.8 | 0.58 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 59     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 250    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 220    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 310    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 180    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 250    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 28     |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 220    |           | 23  | 5.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 410    |           | 23  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                   | 49     |           | 1.8 | 0.73 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-P4 (3)

Lab Sample ID: 410-56522-13

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 63     | J         | 400 | 40   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 59     | J         | 400 | 48   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 180    | J         | 810 | 110  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 260    | J         | 400 | 160  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 87     | J         | 400 | 40   | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Anthracene             | 3400   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 8900   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 7300   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 9700   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 5000   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Chrysene               | 8200   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Fluorene               | 1800   |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 15000  |           | 210 | 51   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 16000  |           | 210 | 42   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Lead                   | 150    |           | 1.4 | 0.56 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550-P5 (3)

Lab Sample ID: 410-56522-14

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 16     |           | 8.6 | 0.86 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Client Sample ID: 7550-P5 (3) (Continued)

Lab Sample ID: 410-56522-14

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene                | 1.7    | J         | 8.6 | 1.0  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 18     |           | 17  | 2.4  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                | 2.5    | J         | 8.6 | 0.86 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Naphthalene            | 8.0    | J         | 8.6 | 3.5  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 9.0    |           | 8.6 | 0.86 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 4600   |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 9400   |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 9100   |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 12000  |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 6600   |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Chrysene               | 9900   |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Fluorene               | 1900   |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 16000  |           | 260 | 62   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 18000  |           | 260 | 52   | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Lead                   | 120    |           | 2.2 | 0.87 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551-Center (5)

Lab Sample ID: 410-56522-15

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Methyl tertiary butyl ether | 29     |           | 9.0 | 0.90 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 25     | J         | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 37     |           | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 60     |           | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 76     |           | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 60     |           | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 54     |           | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 14     | J         | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 100    |           | 32  | 7.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 81     |           | 32  | 6.3  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 47     |           | 2.2 | 0.88 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: DUP-9

Lab Sample ID: 410-56522-16

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Toluene                     | 1.1    | J         | 8.2 | 0.98 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 23     |           | 8.2 | 0.82 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                     | 1.2    | J         | 8.2 | 0.82 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 22     | J         | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 54     |           | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 58     |           | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 69     |           | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 62     |           | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 68     |           | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 9.1    | J         | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 91     |           | 28  | 6.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 99     |           | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 42     |           | 2.0 | 0.78 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: Trip Blank

Lab Sample ID: 410-56522-17

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 4847-P5 (3)

Lab Sample ID: 410-56522-1

Date Collected: 09/23/21 08:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 68.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.4 | 0.67 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.4 | 1.0  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.4 | 0.84 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Toluene                     | ND     |           | 8.4 | 1.0  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Xylenes, Total              | ND     |           | 17  | 2.4  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.4 | 0.84 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Benzene                     | ND     |           | 8.4 | 0.84 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Naphthalene                 | ND     |           | 8.4 | 3.4  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.4 | 0.84 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Isopropylbenzene            | ND     |           | 8.4 | 0.67 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.4 | 0.67 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:15 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104       |           | 54 - 135 | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 09/26/21 09:30 | 09/29/21 18:15 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 09/26/21 09:30 | 09/29/21 18:15 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Benzo[a]anthracene   | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Benzo[a]pyrene       | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Benzo[b]fluoranthene | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Chrysene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Fluorene             | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Phenanthrene         | ND     |           | 24 | 5.7 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Pyrene               | ND     |           | 24 | 4.8 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:11 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| Nitrobenzene-d5 (Surr)  | 76        |           | 32 - 97  | 09/28/21 09:45 | 09/30/21 01:11 | 1       |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 | 09/28/21 09:45 | 09/30/21 01:11 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 12     |           | 1.8 | 0.71 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:15 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 31.4   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 2040-Center (5)

Lab Sample ID: 410-56522-2

Date Collected: 09/23/21 09:15

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 64.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 9.4 | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| 1,2-Dichloroethane | ND     |           | 9.4 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 2040-Center (5)

Lab Sample ID: 410-56522-2

Date Collected: 09/23/21 09:15

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 64.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 9.4      | 0.94 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Toluene                      | ND        |           | 9.4      | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Xylenes, Total               | ND        |           | 19       | 2.6  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 9.4      | 0.94 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Benzene                      | ND        |           | 9.4      | 0.94 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Naphthalene                  | ND        |           | 9.4      | 3.8  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 9.4      | 0.94 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Isopropylbenzene             | ND        |           | 9.4      | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| 1,2-Dibromoethane            | ND        |           | 9.4      | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 115       |           | 54 - 135 |      |       |   | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 |      |       |   | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 |      |       |   | 09/26/21 09:30 | 09/29/21 18:38 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 |      |       |   | 09/26/21 09:30 | 09/29/21 18:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Benzo[a]anthracene      | 17        | J         | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Benzo[a]pyrene          | 17        | J         | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Benzo[b]fluoranthene    | 18        | J         | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Benzo[g,h,i]perylene    | 8.6       | J         | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Chrysene                | 35        |           | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Fluorene                | ND        |           | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Phenanthrene            | 17        | J         | 26       | 6.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Pyrene                  | 22        | J         | 26       | 5.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 |     |       |   | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  |     |       |   | 09/28/21 09:45 | 09/30/21 01:33 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 |     |       |   | 09/28/21 09:45 | 09/30/21 01:33 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 24     |           | 2.2 | 0.86 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:18 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 35.1   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 2045-Center (5)

Lab Sample ID: 410-56522-3

Date Collected: 09/23/21 09:30

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 67.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 8.2 | 0.65 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| 1,2-Dichloroethane     | ND     |           | 8.2 | 0.98 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Toluene                | ND     |           | 8.2 | 0.98 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 2045-Center (5)

Lab Sample ID: 410-56522-3

Date Collected: 09/23/21 09:30

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 67.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 16  | 2.3  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Benzene                     | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Naphthalene                 | ND     |           | 8.2 | 3.3  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Isopropylbenzene            | ND     |           | 8.2 | 0.65 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.2 | 0.65 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:33 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 50 - 131 | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Dibromofluoromethane (Surr)  | 26        | S1-       | 50 - 141 | 09/26/21 09:30 | 09/29/21 15:33 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 09/26/21 09:30 | 09/29/21 15:33 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Benzo[a]anthracene   | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Benzo[a]pyrene       | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Benzo[b]fluoranthene | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Chrysene             | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Fluorene             | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Phenanthrene         | 7.4    | J         | 25 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Pyrene               | ND     |           | 25 | 4.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 01:56 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 80        |           | 39 - 100 | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 09/28/21 09:45 | 09/30/21 01:56 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 09/28/21 09:45 | 09/30/21 01:56 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 6.7    |           | 1.9 | 0.74 | mg/Kg | ✱ | 09/27/21 08:21 | 09/30/21 13:17 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 32.6   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 941-Center (5)

Lab Sample ID: 410-56522-4

Date Collected: 09/23/21 09:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 74.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 11 | 0.90 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| 1,2-Dichloroethane          | ND     |           | 11 | 1.3  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Toluene                     | ND     |           | 11 | 1.3  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Xylenes, Total              | ND     |           | 22 | 3.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Methyl tertiary butyl ether | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 941-Center (5)

Lab Sample ID: 410-56522-4

Date Collected: 09/23/21 09:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 74.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Naphthalene            | ND     |           | 11 | 4.5  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 11 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Isopropylbenzene       | ND     |           | 11 | 0.90 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| 1,2-Dibromoethane      | ND     |           | 11 | 0.90 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:31 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Dibromofluoromethane (Surr)  | 108       |           | 50 - 141 | 09/26/21 09:30 | 09/28/21 17:31 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 09/26/21 09:30 | 09/28/21 17:31 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 45000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Benzo[a]anthracene   | 49000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Benzo[a]pyrene       | 35000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Benzo[b]fluoranthene | 38000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Benzo[g,h,i]perylene | 17000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Chrysene             | 41000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Fluorene             | 24000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Phenanthrene         | 150000 |           | 1100 | 270 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Pyrene               | 89000  |           | 1100 | 220 | ug/Kg | ✱ | 09/28/21 09:45 | 10/01/21 12:55 | 50      |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 69        |           | 39 - 100 | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  | 09/28/21 09:45 | 10/01/21 12:55 | 50      |
| p-Terphenyl-d14 (Surr)  | 87        |           | 45 - 108 | 09/28/21 09:45 | 10/01/21 12:55 | 50      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 560    |           | 1.9 | 0.75 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:23 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 25.5   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-Center (5)

Lab Sample ID: 410-56522-5

Date Collected: 09/23/21 10:24

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 60.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.3 | 0.58 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.3 | 0.87 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| 1,3,5-Trimethylbenzene      | 2.3    | J         | 7.3 | 0.73 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Toluene                     | ND     |           | 7.3 | 0.87 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.0  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Benzene                     | ND     |           | 7.3 | 0.73 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Naphthalene                 | ND     |           | 7.3 | 2.9  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-Center (5)

Lab Sample ID: 410-56522-5

Date Collected: 09/23/21 10:24

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 60.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 1.8       | J         | 7.3      | 0.73 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Isopropylbenzene             | ND        |           | 7.3      | 0.58 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| 1,2-Dibromoethane            | ND        |           | 7.3      | 0.58 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 54 - 135 |      |       |   | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 |      |       |   | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 |      |       |   | 09/26/21 09:30 | 09/28/21 17:54 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 |      |       |   | 09/26/21 09:30 | 09/28/21 17:54 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 84        |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Benzo[a]anthracene      | 190       |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Benzo[a]pyrene          | 200       |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Benzo[b]fluoranthene    | 240       |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Benzo[g,h,i]perylene    | 160       |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Chrysene                | 230       |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Fluorene                | 54        |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Phenanthrene            | 320       |           | 27       | 6.5 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Pyrene                  | 410       |           | 27       | 5.4 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 81        |           | 39 - 100 |     |       |   | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  |     |       |   | 09/28/21 09:45 | 09/30/21 02:41 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 |     |       |   | 09/28/21 09:45 | 09/30/21 02:41 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 88     |           | 1.9 | 0.75 | mg/Kg | ☆ | 09/27/21 08:21 | 09/27/21 18:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 39.2   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P2 (3)

Lab Sample ID: 410-56522-6

Date Collected: 09/23/21 11:10

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 71.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.0 | 0.56 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.0 | 0.84 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| 1,3,5-Trimethylbenzene      | 5.8    | J         | 7.0 | 0.70 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Toluene                     | 1.3    | J         | 7.0 | 0.84 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Xylenes, Total              | 4.2    | J         | 14  | 2.0  | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.0 | 0.70 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Benzene                     | 1.1    | J         | 7.0 | 0.70 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Naphthalene                 | ND     |           | 7.0 | 2.8  | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| 1,2,4-Trimethylbenzene      | 4.8    | J         | 7.0 | 0.70 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Isopropylbenzene            | ND     |           | 7.0 | 0.56 | ug/Kg | ☆ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P2 (3)

Lab Sample ID: 410-56522-6

Date Collected: 09/23/21 11:10

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 71.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 7.0      | 0.56 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 54 - 135 |      |       |   | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 |      |       |   | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 09/26/21 09:30 | 09/28/21 18:16 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 |      |       |   | 09/26/21 09:30 | 09/28/21 18:16 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 400       |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Benzo[a]anthracene      | 1700      |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Benzo[a]pyrene          | 1600      |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Benzo[b]fluoranthene    | 2100      |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Benzo[g,h,i]perylene    | 1100      |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Chrysene                | 1600      |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Fluorene                | 130       |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Phenanthrene            | 1300      |           | 23       | 5.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Pyrene                  | 2500      |           | 23       | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 70        |           | 39 - 100 |     |       |   | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| Nitrobenzene-d5 (Surr)  | 63        |           | 32 - 97  |     |       |   | 09/28/21 09:45 | 09/30/21 03:04 | 1       |
| p-Terphenyl-d14 (Surr)  | 76        |           | 45 - 108 |     |       |   | 09/28/21 09:45 | 09/30/21 03:04 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 170    |           | 1.6 | 0.64 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:34 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 29.0   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P1 (3)

Lab Sample ID: 410-56522-7

Date Collected: 09/23/21 11:25

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 55.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 5.2    | J         | 9.2 | 0.73 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.2 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| 1,3,5-Trimethylbenzene      | 230    |           | 9.2 | 0.92 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Toluene                     | 12     |           | 9.2 | 1.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Xylenes, Total              | 99     |           | 18  | 2.6  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.2 | 0.92 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Benzene                     | 2.9    | J         | 9.2 | 0.92 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Naphthalene                 | 54     |           | 9.2 | 3.7  | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| 1,2,4-Trimethylbenzene      | 350    |           | 9.2 | 0.92 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Isopropylbenzene            | 5.1    | J         | 9.2 | 0.73 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| 1,2-Dibromoethane           | 0.89   | J         | 9.2 | 0.73 | ug/Kg | ✱ | 09/26/21 09:30 | 09/28/21 19:24 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P1 (3)

Lab Sample ID: 410-56522-7

Date Collected: 09/23/21 11:25

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 55.7

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| 4-Bromofluorobenzene (Surr)  | 141       | S1+       | 50 - 131 | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 09/26/21 09:30 | 09/28/21 19:24 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 09/26/21 09:30 | 09/28/21 19:24 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 230    |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Benzo[a]anthracene   | 970    |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Benzo[a]pyrene       | 1200   |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Benzo[b]fluoranthene | 1300   |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Benzo[g,h,i]perylene | 840    |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Chrysene             | 920    |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Fluorene             | 93     |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Phenanthrene         | 780    |           | 30 | 7.1 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Pyrene               | 1200   |           | 30 | 5.9 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:27 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 76        |           | 39 - 100 | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| Nitrobenzene-d5 (Surr)  | 72        |           | 32 - 97  | 09/28/21 09:45 | 09/30/21 03:27 | 1       |
| p-Terphenyl-d14 (Surr)  | 83        |           | 45 - 108 | 09/28/21 09:45 | 09/30/21 03:27 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 690    |           | 2.4 | 0.96 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 17:58 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 44.3   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P7 (3)

Lab Sample ID: 410-56522-8

Date Collected: 09/23/21 11:40

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 61.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.5 | 0.90 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| 1,3,5-Trimethylbenzene      | 4.1    | J         | 7.5 | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Toluene                     | 2.2    | J         | 7.5 | 0.90 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Xylenes, Total              | 3.7    | J         | 15  | 2.1  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.5 | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Benzene                     | 1.9    | J         | 7.5 | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Naphthalene                 | ND     |           | 7.5 | 3.0  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| 1,2,4-Trimethylbenzene      | 3.9    | J         | 7.5 | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Isopropylbenzene            | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| 1,2-Dibromoethane           | ND     |           | 7.5 | 0.60 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 15:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 54 - 135 | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 09/26/21 09:30 | 09/29/21 15:57 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 09/26/21 09:30 | 09/29/21 15:57 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P7 (3)

Lab Sample ID: 410-56522-8

Date Collected: 09/23/21 11:40

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 61.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 94        |           | 52 - 141 | 09/26/21 09:30 | 09/29/21 15:57 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 32     |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Benzo[a]anthracene   | 110    |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Benzo[a]pyrene       | 120    |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Benzo[b]fluoranthene | 140    |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Benzo[g,h,i]perylene | 98     |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Chrysene             | 110    |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Fluorene             | 15 J   |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Phenanthrene         | 170    |           | 27 | 6.5 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Pyrene               | 190    |           | 27 | 5.4 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 03:49 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| Nitrobenzene-d5 (Surr)  | 76        |           | 32 - 97  | 09/28/21 09:45 | 09/30/21 03:49 | 1       |
| p-Terphenyl-d14 (Surr)  | 90        |           | 45 - 108 | 09/28/21 09:45 | 09/30/21 03:49 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 85     |           | 2.1 | 0.82 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:37 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 38.6   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P6 (3)

Lab Sample ID: 410-56522-9

Date Collected: 09/23/21 11:55

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 63.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.6 | 1.2  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| 1,3,5-Trimethylbenzene      | 3.8 J  |           | 9.6 | 0.96 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Toluene                     | 1.7 J  |           | 9.6 | 1.2  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Xylenes, Total              | ND     |           | 19  | 2.7  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Methyl tertiary butyl ether | ND     |           | 9.6 | 0.96 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Benzene                     | 0.98 J |           | 9.6 | 0.96 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Naphthalene                 | 6.2 J  |           | 9.6 | 3.9  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| 1,2,4-Trimethylbenzene      | 4.3 J  |           | 9.6 | 0.96 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Isopropylbenzene            | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.6 | 0.77 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 16:20 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111       |           | 54 - 135 | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 50 - 131 | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 09/26/21 09:30 | 09/29/21 16:20 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 | 09/26/21 09:30 | 09/29/21 16:20 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P6 (3)

Lab Sample ID: 410-56522-9

Date Collected: 09/23/21 11:55

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 63.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 230       |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Benzo[a]anthracene      | 680       |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Benzo[a]pyrene          | 480       |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Benzo[b]fluoranthene    | 680       |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Benzo[g,h,i]perylene    | 300       |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Chrysene                | 650       |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Fluorene                | 54        |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Phenanthrene            | 790       |           | 26       | 6.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Pyrene                  | 1500      |           | 26       | 5.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 |     |       |   | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  |     |       |   | 09/28/21 09:45 | 09/30/21 04:12 | 1       |
| p-Terphenyl-d14 (Surr)  | 84        |           | 45 - 108 |     |       |   | 09/28/21 09:45 | 09/30/21 04:12 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 87     |           | 2.2 | 0.90 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 36.5   |           | 1.0 | 1.0 | %    | — |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P3 (3)

Lab Sample ID: 410-56522-10

Date Collected: 09/23/21 12:05

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 78.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 6.2      | 0.50 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| 1,2-Dichloroethane           | ND        |           | 6.2      | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Toluene                      | 0.77      | J         | 6.2      | 0.75 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Xylenes, Total               | ND        |           | 12       | 1.7  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Benzene                      | 0.74      | J         | 6.2      | 0.62 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Naphthalene                  | ND        |           | 6.2      | 2.5  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 6.2      | 0.62 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Isopropylbenzene             | ND        |           | 6.2      | 0.50 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| 1,2-Dibromoethane            | ND        |           | 6.2      | 0.50 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 |      |       |   | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 |      |       |   | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 09/26/21 09:30 | 09/29/21 19:02 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 |      |       |   | 09/26/21 09:30 | 09/29/21 19:02 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene         | 400    |           | 21 | 4.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Benzo[a]anthracene | 1600   |           | 21 | 4.2 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P3 (3)

Lab Sample ID: 410-56522-10

Date Collected: 09/23/21 12:05

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 78.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene       | 1600   |           | 21 | 4.2 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Benzo[b]fluoranthene | 2000   |           | 21 | 4.2 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Benzo[g,h,i]perylene | 1100   |           | 21 | 4.2 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Chrysene             | 1600   |           | 21 | 4.2 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Fluorene             | 190    |           | 21 | 4.2 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Phenanthrene         | 1200   |           | 21 | 5.1 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Pyrene               | 2600   |           | 21 | 4.2 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:35 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| Nitrobenzene-d5 (Surr)  | 70        |           | 32 - 97  | 09/28/21 09:45 | 09/30/21 04:35 | 1       |
| p-Terphenyl-d14 (Surr)  | 85        |           | 45 - 108 | 09/28/21 09:45 | 09/30/21 04:35 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 48     |           | 1.8 | 0.72 | mg/Kg | ☆ | 09/27/21 08:21 | 09/27/21 18:42 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.9   |           | 1.0 | 1.0 | %    | - |          | 09/27/21 06:27 | 1       |

Client Sample ID: UNK-ST-W (3)

Lab Sample ID: 410-56522-11

Date Collected: 09/23/21 12:20

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 60.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.4 | 0.67 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.4 | 1.0  | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| 1,3,5-Trimethylbenzene      | 3.2    | J         | 8.4 | 0.84 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Toluene                     | 2.1    | J         | 8.4 | 1.0  | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Xylenes, Total              | 3.0    | J         | 17  | 2.3  | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.4 | 0.84 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Benzene                     | 1.5    | J         | 8.4 | 0.84 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Naphthalene                 | ND     |           | 8.4 | 3.4  | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| 1,2,4-Trimethylbenzene      | 2.3    | J         | 8.4 | 0.84 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Isopropylbenzene            | ND     |           | 8.4 | 0.67 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.4 | 0.67 | ug/Kg | ☆ | 09/26/21 09:30 | 09/29/21 19:25 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 50 - 131 | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 09/26/21 09:30 | 09/29/21 19:25 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 09/26/21 09:30 | 09/29/21 19:25 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 210    |           | 27 | 5.5 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Benzo[a]anthracene   | 1000   |           | 27 | 5.5 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Benzo[a]pyrene       | 770    |           | 27 | 5.5 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Benzo[b]fluoranthene | 1100   |           | 27 | 5.5 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: UNK-ST-W (3)

Lab Sample ID: 410-56522-11

Date Collected: 09/23/21 12:20

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 60.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene | 500    |           | 27 | 5.5 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Chrysene             | 1100   |           | 27 | 5.5 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Fluorene             | 54     |           | 27 | 5.5 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Phenanthrene         | 630    |           | 27 | 6.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Pyrene               | 2500   |           | 27 | 5.5 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 04:58 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 79        |           | 39 - 100 | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| Nitrobenzene-d5 (Surr)  | 68        |           | 32 - 97  | 09/28/21 09:45 | 09/30/21 04:58 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 | 09/28/21 09:45 | 09/30/21 04:58 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 2.3 | 0.93 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:45 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 39.4   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: UNK-ST-E (3)

Lab Sample ID: 410-56522-12

Date Collected: 09/23/21 12:30

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 71.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | 1.1    | J         | 5.8 | 0.47 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.8 | 0.70 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| 1,3,5-Trimethylbenzene      | 6.9    |           | 5.8 | 0.58 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Toluene                     | 5.7    | J         | 5.8 | 0.70 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Xylenes, Total              | 11     | J         | 12  | 1.6  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Benzene                     | 4.1    | J         | 5.8 | 0.58 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Naphthalene                 | 9.0    |           | 5.8 | 2.3  | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| 1,2,4-Trimethylbenzene      | 4.9    | J         | 5.8 | 0.58 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Isopropylbenzene            | ND     |           | 5.8 | 0.47 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| 1,2-Dibromoethane           | ND     |           | 5.8 | 0.47 | ug/Kg | ✱ | 09/26/21 09:30 | 09/29/21 19:48 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 108       |           | 54 - 135 | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 09/26/21 09:30 | 09/29/21 19:48 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 09/26/21 09:30 | 09/29/21 19:48 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 59     |           | 23 | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Benzo[a]anthracene   | 250    |           | 23 | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Benzo[a]pyrene       | 220    |           | 23 | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Benzo[b]fluoranthene | 310    |           | 23 | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Benzo[g,h,i]perylene | 180    |           | 23 | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Chrysene             | 250    |           | 23 | 4.6 | ug/Kg | ✱ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: UNK-ST-E (3)

Lab Sample ID: 410-56522-12

Date Collected: 09/23/21 12:30

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 71.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Fluorene                | 28        |           | 23       | 4.6 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Phenanthrene            | 220       |           | 23       | 5.6 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Pyrene                  | 410       |           | 23       | 4.6 | ug/Kg | ☆ | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 71        |           | 39 - 100 |     |       |   | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| Nitrobenzene-d5 (Surr)  | 60        |           | 32 - 97  |     |       |   | 09/28/21 09:45 | 09/30/21 05:20 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 |     |       |   | 09/28/21 09:45 | 09/30/21 05:20 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 49     |           | 1.8 | 0.73 | mg/Kg | ☆ | 09/27/21 08:21 | 09/27/21 18:48 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.6   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P4 (3)

Lab Sample ID: 410-56522-13

Date Collected: 09/23/21 12:40

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 78.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 400      | 32  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| 1,2-Dichloroethane           | ND        |           | 400      | 48  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| 1,3,5-Trimethylbenzene       | 63        | J         | 400      | 40  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Toluene                      | 59        | J         | 400      | 48  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Xylenes, Total               | 180       | J         | 810      | 110 | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Methyl tertiary butyl ether  | ND        |           | 400      | 40  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Benzene                      | ND        |           | 400      | 40  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Naphthalene                  | 260       | J         | 400      | 160 | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| 1,2,4-Trimethylbenzene       | 87        | J         | 400      | 40  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Isopropylbenzene             | ND        |           | 400      | 32  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| 1,2-Dibromoethane            | ND        |           | 400      | 32  | ug/Kg | ☆ | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 79        |           | 54 - 135 |     |       |   | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 |     |       |   | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Dibromofluoromethane (Surr)  | 76        |           | 50 - 141 |     |       |   | 09/26/21 10:09 | 10/01/21 13:22 | 50      |
| Toluene-d8 (Surr)            | 73        |           | 52 - 141 |     |       |   | 09/26/21 10:09 | 10/01/21 13:22 | 50      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 3400   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Benzo[a]anthracene   | 8900   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Benzo[a]pyrene       | 7300   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Benzo[b]fluoranthene | 9700   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Benzo[g,h,i]perylene | 5000   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Chrysene             | 8200   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Fluorene             | 1800   |           | 210 | 42  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Phenanthrene         | 15000  |           | 210 | 51  | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P4 (3)

Lab Sample ID: 410-56522-13

Date Collected: 09/23/21 12:40

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 78.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | 16000     |           | 210      | 42  | ug/Kg | ✱ | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 69        |           | 39 - 100 |     |       |   | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| Nitrobenzene-d5 (Surr)  | 60        |           | 32 - 97  |     |       |   | 09/28/21 18:50 | 09/30/21 00:09 | 10      |
| p-Terphenyl-d14 (Surr)  | 86        |           | 45 - 108 |     |       |   | 09/28/21 18:50 | 09/30/21 00:09 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 150    |           | 1.4 | 0.56 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:51 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 21.9   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7550-P5 (3)

Lab Sample ID: 410-56522-14

Date Collected: 09/23/21 12:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 63.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 8.6      | 0.69 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| 1,2-Dichloroethane           | ND        |           | 8.6      | 1.0  | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| 1,3,5-Trimethylbenzene       | 16        |           | 8.6      | 0.86 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Toluene                      | 1.7 J     |           | 8.6      | 1.0  | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Xylenes, Total               | 18        |           | 17       | 2.4  | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 8.6      | 0.86 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Benzene                      | 2.5 J     |           | 8.6      | 0.86 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Naphthalene                  | 8.0 J     |           | 8.6      | 3.5  | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| 1,2,4-Trimethylbenzene       | 9.0       |           | 8.6      | 0.86 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Isopropylbenzene             | ND        |           | 8.6      | 0.69 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| 1,2-Dibromoethane            | ND        |           | 8.6      | 0.69 | ug/Kg | ✱ | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 54 - 135 |      |       |   | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 |      |       |   | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 |      |       |   | 09/26/21 10:55 | 09/29/21 20:10 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 |      |       |   | 09/26/21 10:55 | 09/29/21 20:10 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 4600   |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Benzo[a]anthracene   | 9400   |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Benzo[a]pyrene       | 9100   |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Benzo[b]fluoranthene | 12000  |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Benzo[g,h,i]perylene | 6600   |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Chrysene             | 9900   |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Fluorene             | 1900   |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Phenanthrene         | 16000  |           | 260 | 62  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Pyrene               | 18000  |           | 260 | 52  | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 18:54 | 10      |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

Client Sample ID: 7550-P5 (3)

Lab Sample ID: 410-56522-14

Date Collected: 09/23/21 12:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 63.7

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 67        |           | 39 - 100 | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| Nitrobenzene-d5 (Surr)  | 61        |           | 32 - 97  | 09/28/21 18:50 | 09/29/21 18:54 | 10      |
| p-Terphenyl-d14 (Surr)  | 79        |           | 45 - 108 | 09/28/21 18:50 | 09/29/21 18:54 | 10      |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 120    |           | 2.2 | 0.87 | mg/Kg | ✱ | 09/27/21 08:21 | 09/27/21 18:54 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 36.3   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

Client Sample ID: 7551-Center (5)

Lab Sample ID: 410-56522-15

Date Collected: 09/23/21 13:05

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 51.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.0 | 0.72 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.0 | 1.1  | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 9.0 | 0.90 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Toluene                     | ND     |           | 9.0 | 1.1  | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.5  | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Methyl tertiary butyl ether | 29     |           | 9.0 | 0.90 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Benzene                     | ND     |           | 9.0 | 0.90 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Naphthalene                 | ND     |           | 9.0 | 3.6  | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 9.0 | 0.90 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Isopropylbenzene            | ND     |           | 9.0 | 0.72 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| 1,2-Dibromoethane           | ND     |           | 9.0 | 0.72 | ug/Kg | ✱ | 09/26/21 10:55 | 09/28/21 18:39 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 09/26/21 10:55 | 09/28/21 18:39 | 1       |
| Toluene-d8 (Surr)            | 93        |           | 52 - 141 | 09/26/21 10:55 | 09/28/21 18:39 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 25     | J         | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Benzo[a]anthracene   | 37     |           | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Benzo[a]pyrene       | 60     |           | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Benzo[b]fluoranthene | 76     |           | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Benzo[g,h,i]perylene | 60     |           | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Chrysene             | 54     |           | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Fluorene             | 14     | J         | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Phenanthrene         | 100    |           | 32 | 7.6 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Pyrene               | 81     |           | 32 | 6.3 | ug/Kg | ✱ | 09/28/21 18:50 | 09/29/21 19:17 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 74        |           | 39 - 100 | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| Nitrobenzene-d5 (Surr)  | 67        |           | 32 - 97  | 09/28/21 18:50 | 09/29/21 19:17 | 1       |
| p-Terphenyl-d14 (Surr)  | 92        |           | 45 - 108 | 09/28/21 18:50 | 09/29/21 19:17 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Client Sample ID: 7551-Center (5)

## Lab Sample ID: 410-56522-15

Date Collected: 09/23/21 13:05

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 51.9

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 47     |           | 2.2 | 0.88 | mg/Kg | ☆ | 09/27/21 08:21 | 09/27/21 18:56 | 1       |

### General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 48.1   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

## Client Sample ID: DUP-9

## Lab Sample ID: 410-56522-16

Date Collected: 09/23/21 00:00

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 58.3

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 8.2 | 0.66 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.2 | 0.98 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Toluene                     | 1.1    | J         | 8.2 | 0.98 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Xylenes, Total              | ND     |           | 16  | 2.3  | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Methyl tertiary butyl ether | 23     |           | 8.2 | 0.82 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Benzene                     | 1.2    | J         | 8.2 | 0.82 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Naphthalene                 | ND     |           | 8.2 | 3.3  | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 8.2 | 0.82 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Isopropylbenzene            | ND     |           | 8.2 | 0.66 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| 1,2-Dibromoethane           | ND     |           | 8.2 | 0.66 | ug/Kg | ☆ | 09/26/21 10:55 | 09/28/21 19:02 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 09/26/21 10:55 | 09/28/21 19:02 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 09/26/21 10:55 | 09/28/21 19:02 | 1       |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 22     | J         | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Benzo[a]anthracene   | 54     |           | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Benzo[a]pyrene       | 58     |           | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Benzo[b]fluoranthene | 69     |           | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Benzo[g,h,i]perylene | 62     |           | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Chrysene             | 68     |           | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Fluorene             | 9.1    | J         | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Phenanthrene         | 91     |           | 28 | 6.8 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Pyrene               | 99     |           | 28 | 5.7 | ug/Kg | ☆ | 09/28/21 18:50 | 09/30/21 00:33 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 87        |           | 39 - 100 | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| Nitrobenzene-d5 (Surr)  | 69        |           | 32 - 97  | 09/28/21 18:50 | 09/30/21 00:33 | 1       |
| p-Terphenyl-d14 (Surr)  | 113       | S1+       | 45 - 108 | 09/28/21 18:50 | 09/30/21 00:33 | 1       |

### Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 42     |           | 2.0 | 0.78 | mg/Kg | ☆ | 09/27/21 08:21 | 09/27/21 19:04 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: DUP-9**

**Lab Sample ID: 410-56522-16**

Date Collected: 09/23/21 00:00

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 58.3

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 41.7   |           | 1.0 | 1.0 | %    |   |          | 09/27/21 06:27 | 1       |

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-56522-17**

Date Collected: 09/23/21 00:00

Matrix: Water

Date Received: 09/24/21 19:31

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane            | ND        |           | 1.0      | 0.30 | ug/L |   |          | 09/29/21 21:00 | 1       |
| Ethylbenzene                 | ND        |           | 1.0      | 0.40 | ug/L |   |          | 09/29/21 21:00 | 1       |
| 1,2-Dichloroethane           | ND        |           | 1.0      | 0.30 | ug/L |   |          | 09/29/21 21:00 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 5.0      | 0.30 | ug/L |   |          | 09/29/21 21:00 | 1       |
| Toluene                      | ND        |           | 1.0      | 0.30 | ug/L |   |          | 09/29/21 21:00 | 1       |
| Xylenes, Total               | ND        |           | 6.0      | 1.4  | ug/L |   |          | 09/29/21 21:00 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 1.0      | 0.20 | ug/L |   |          | 09/29/21 21:00 | 1       |
| Benzene                      | ND        |           | 1.0      | 0.30 | ug/L |   |          | 09/29/21 21:00 | 1       |
| Naphthalene                  | ND        |           | 5.0      | 1.0  | ug/L |   |          | 09/29/21 21:00 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.0      | 1.0  | ug/L |   |          | 09/29/21 21:00 | 1       |
| Isopropylbenzene             | ND        |           | 5.0      | 0.30 | ug/L |   |          | 09/29/21 21:00 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 80 - 120 |      |      |   |          | 09/29/21 21:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 80 - 120 |      |      |   |          | 09/29/21 21:00 | 1       |
| Dibromofluoromethane (Surr)  | 96        |           | 80 - 120 |      |      |   |          | 09/29/21 21:00 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 80 - 120 |      |      |   |          | 09/29/21 21:00 | 1       |

# Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-56522-1       | 4847-P5 (3)            | 104  | 87              | 106              | 95              |
| 410-56522-2       | 2040-Center (5)        | 115  | 89              | 105              | 94              |
| 410-56522-3       | 2045-Center (5)        | 109  | 90              | 26 S1-           | 95              |
| 410-56522-4       | 941-Center (5)         | 107  | 89              | 108              | 98              |
| 410-56522-5       | 7550-Center (5)        | 105  | 94              | 105              | 96              |
| 410-56522-6       | 7550-P2 (3)            | 106  | 96              | 103              | 94              |
| 410-56522-7       | 7550-P1 (3)            | 102  | 141 S1+         | 104              | 105             |
| 410-56522-8       | 7550-P7 (3)            | 110  | 91              | 105              | 94              |
| 410-56522-9       | 7550-P6 (3)            | 111  | 90              | 106              | 94              |
| 410-56522-10      | 7550-P3 (3)            | 114  | 89              | 103              | 93              |
| 410-56522-11      | UNK-ST-W (3)           | 107  | 90              | 106              | 95              |
| 410-56522-12      | UNK-ST-E (3)           | 108  | 88              | 103              | 96              |
| 410-56522-13      | 7550-P4 (3)            | 79   | 97              | 76               | 73              |
| 410-56522-14      | 7550-P5 (3)            | 105  | 85              | 103              | 96              |
| 410-56522-15      | 7551-Center (5)        | 107  | 95              | 105              | 93              |
| 410-56522-16      | DUP-9                  | 103  | 95              | 105              | 95              |
| LCS 410-176078/4  | Lab Control Sample     | 102  | 100             | 104              | 97              |
| LCS 410-176614/4  | Lab Control Sample     | 102  | 92              | 103              | 96              |
| LCS 410-177596/4  | Lab Control Sample     | 99   | 94              | 98               | 93              |
| LCSD 410-176078/5 | Lab Control Sample Dup | 100  | 99              | 102              | 96              |
| LCSD 410-176614/5 | Lab Control Sample Dup | 103  | 92              | 102              | 95              |
| LCSD 410-177596/5 | Lab Control Sample Dup | 100  | 95              | 99               | 94              |
| MB 410-176078/7   | Method Blank           | 104  | 96              | 103              | 94              |
| MB 410-176614/7   | Method Blank           | 106  | 90              | 103              | 95              |
| MB 410-177596/7   | Method Blank           | 101  | 94              | 98               | 94              |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|--|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-56522-17      | Trip Blank             | 101  | 100             | 96               | 103             |
| LCS 410-176910/4  | Lab Control Sample     | 102  | 102             | 96               | 102             |
| LCSD 410-176910/5 | Lab Control Sample Dup | 102  | 101             | 95               | 101             |
| MB 410-176910/6   | Method Blank           | 101  | 99              | 95               | 102             |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# Surrogate Summary

Client: Stantec Consulting Corp.

Job ID: 410-56522-1

Project/Site: PBF Logistics

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|--------------------|--------------------|--|----------------|--------------------|
|                    |                    | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-56522-1        | 4847-P5 (3)        | 81   | 76             | 86                 |
| 410-56522-2        | 2040-Center (5)    | 80   | 69             | 83                 |
| 410-56522-3        | 2045-Center (5)    | 80   | 72             | 85                 |
| 410-56522-4        | 941-Center (5)     | 69   | 61             | 87                 |
| 410-56522-5        | 7550-Center (5)    | 81   | 74             | 83                 |
| 410-56522-6        | 7550-P2 (3)        | 70   | 63             | 76                 |
| 410-56522-7        | 7550-P1 (3)        | 76   | 72             | 83                 |
| 410-56522-8        | 7550-P7 (3)        | 84   | 76             | 90                 |
| 410-56522-9        | 7550-P6 (3)        | 74   | 67             | 84                 |
| 410-56522-10       | 7550-P3 (3)        | 79   | 70             | 85                 |
| 410-56522-11       | UNK-ST-W (3)       | 79   | 68             | 80                 |
| 410-56522-12       | UNK-ST-E (3)       | 71   | 60             | 80                 |
| 410-56522-13       | 7550-P4 (3)        | 69   | 60             | 86                 |
| 410-56522-14       | 7550-P5 (3)        | 67   | 61             | 79                 |
| 410-56522-15       | 7551-Center (5)    | 74   | 67             | 92                 |
| 410-56522-16       | DUP-9              | 87   | 69             | 113 S1+            |
| LCS 410-176060/2-A | Lab Control Sample | 89   | 73             | 88                 |
| LCS 410-176384/2-A | Lab Control Sample | 91   | 85             | 100                |
| MB 410-176060/1-A  | Method Blank       | 73   | 69             | 82                 |
| MB 410-176384/1-A  | Method Blank       | 90   | 86             | 104                |

## Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-176078/7

Matrix: Solid

Analysis Batch: 176078

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/28/21 11:30 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/28/21 11:30 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 09/28/21 11:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96           |              | 50 - 131 |          | 09/28/21 11:30 | 1       |
| Dibromofluoromethane (Surr)  | 103          |              | 50 - 141 |          | 09/28/21 11:30 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 09/28/21 11:30 | 1       |

Lab Sample ID: LCS 410-176078/4

Matrix: Solid

Analysis Batch: 176078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 19.2       |               | ug/Kg |   | 96   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.9       |               | ug/Kg |   | 104  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.6       |               | ug/Kg |   | 93   | 73 - 120     |
| Toluene                     | 20.0        | 18.0       |               | ug/Kg |   | 90   | 80 - 120     |
| Xylenes, Total              | 60.0        | 57.4       |               | ug/Kg |   | 96   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.4       |               | ug/Kg |   | 92   | 72 - 120     |
| Benzene                     | 20.0        | 18.7       |               | ug/Kg |   | 93   | 80 - 120     |
| Naphthalene                 | 20.0        | 17.4       |               | ug/Kg |   | 87   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.6       |               | ug/Kg |   | 93   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 19.7       |               | ug/Kg |   | 98   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.0       |               | ug/Kg |   | 95   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 104           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-176078/5

Matrix: Solid

Analysis Batch: 176078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 19.3        |                | ug/Kg |   | 96   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane | 20.0        | 19.9        |                | ug/Kg |   | 99   | 71 - 128     | 5   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-176078/5

Matrix: Solid

Analysis Batch: 176078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 18.0        |                | ug/Kg |   | 90   | 80 - 120     | 0   | 30        |
| Xylenes, Total              | 60.0        | 56.9        |                | ug/Kg |   | 95   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 17.7        |                | ug/Kg |   | 89   | 72 - 120     | 4   | 30        |
| Benzene                     | 20.0        | 18.5        |                | ug/Kg |   | 92   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 16.3        |                | ug/Kg |   | 82   | 48 - 130     | 7   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 73 - 120     | 0   | 30        |
| Isopropylbenzene            | 20.0        | 19.7        |                | ug/Kg |   | 98   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 20.0        | 18.5        |                | ug/Kg |   | 92   | 76 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 96             |                | 52 - 141 |

Lab Sample ID: MB 410-176614/7

Matrix: Solid

Analysis Batch: 176614

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/29/21 11:44 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 09/29/21 11:44 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 106          |              | 54 - 135 |          | 09/29/21 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90           |              | 50 - 131 |          | 09/29/21 11:44 | 1       |
| Dibromofluoromethane (Surr)  | 103          |              | 50 - 141 |          | 09/29/21 11:44 | 1       |
| Toluene-d8 (Surr)            | 95           |              | 52 - 141 |          | 09/29/21 11:44 | 1       |

Lab Sample ID: LCS 410-176614/4

Matrix: Solid

Analysis Batch: 176614

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 20.0        | 18.2       |               | ug/Kg |   | 91   | 78 - 120     |
| 1,2-Dichloroethane     | 20.0        | 19.9       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 20.0        | 17.4       |               | ug/Kg |   | 87   | 73 - 120     |
| Toluene                | 20.0        | 17.9       |               | ug/Kg |   | 90   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-176614/4

Matrix: Solid

Analysis Batch: 176614

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 60.0        | 56.4       |               | ug/Kg |   | 94   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.5       |               | ug/Kg |   | 92   | 72 - 120     |
| Benzene                     | 20.0        | 18.7       |               | ug/Kg |   | 94   | 80 - 120     |
| Naphthalene                 | 20.0        | 17.1       |               | ug/Kg |   | 86   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.9       |               | ug/Kg |   | 89   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 18.5       |               | ug/Kg |   | 93   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.5       |               | ug/Kg |   | 98   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 92            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 103           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 96            |               | 52 - 141 |

Lab Sample ID: LCSD 410-176614/5

Matrix: Solid

Analysis Batch: 176614

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 18.0        |                | ug/Kg |   | 90   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.5        |                | ug/Kg |   | 102  | 71 - 128     | 3   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.5        |                | ug/Kg |   | 87   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 18.0        |                | ug/Kg |   | 90   | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 56.1        |                | ug/Kg |   | 94   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.6        |                | ug/Kg |   | 93   | 72 - 120     | 1   | 30        |
| Benzene                     | 20.0        | 18.9        |                | ug/Kg |   | 94   | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 17.1        |                | ug/Kg |   | 85   | 48 - 130     | 0   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.8        |                | ug/Kg |   | 89   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 20.0        | 18.5        |                | ug/Kg |   | 92   | 77 - 120     | 0   | 30        |
| 1,2-Dibromoethane           | 20.0        | 19.8        |                | ug/Kg |   | 99   | 76 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 92             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 95             |                | 52 - 141 |

Lab Sample ID: MB 410-177596/7

Matrix: Solid

Analysis Batch: 177596

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 250 | 20  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250 | 30  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250 | 25  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| Toluene                     | ND        |              | 250 | 30  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| Xylenes, Total              | ND        |              | 500 | 70  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250 | 25  | ug/Kg |   |          | 10/01/21 11:51 | 50      |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-177596/7

Matrix: Solid

Analysis Batch: 177596

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Benzene                | ND        |              | 250 | 25  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| Naphthalene            | ND        |              | 250 | 100 | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| Isopropylbenzene       | ND        |              | 250 | 20  | ug/Kg |   |          | 10/01/21 11:51 | 50      |
| 1,2-Dibromoethane      | ND        |              | 250 | 20  | ug/Kg |   |          | 10/01/21 11:51 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 10/01/21 11:51 | 50      |
| 4-Bromofluorobenzene (Surr)  | 94           |              | 50 - 131 |          | 10/01/21 11:51 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 10/01/21 11:51 | 50      |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 10/01/21 11:51 | 50      |

Lab Sample ID: LCS 410-177596/4

Matrix: Solid

Analysis Batch: 177596

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 1000        | 984        |               | ug/Kg |   | 98   | 78 - 120     |
| 1,2-Dichloroethane          | 1000        | 1050       |               | ug/Kg |   | 105  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 967        |               | ug/Kg |   | 97   | 73 - 120     |
| Toluene                     | 1000        | 984        |               | ug/Kg |   | 98   | 80 - 120     |
| Xylenes, Total              | 3000        | 2950       |               | ug/Kg |   | 98   | 75 - 120     |
| Methyl tertiary butyl ether | 1000        | 1010       |               | ug/Kg |   | 101  | 72 - 120     |
| Benzene                     | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| Naphthalene                 | 1000        | 951        |               | ug/Kg |   | 95   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 1000        | 973        |               | ug/Kg |   | 97   | 73 - 120     |
| Isopropylbenzene            | 1000        | 1020       |               | ug/Kg |   | 102  | 77 - 120     |
| 1,2-Dibromoethane           | 1000        | 1000       |               | ug/Kg |   | 100  | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 94            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 98            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 93            |               | 52 - 141 |

Lab Sample ID: LCSD 410-177596/5

Matrix: Solid

Analysis Batch: 177596

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 1000        | 993         |                | ug/Kg |   | 99   | 78 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 1000        | 1070        |                | ug/Kg |   | 107  | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 1000        | 980         |                | ug/Kg |   | 98   | 73 - 120     | 1   | 30        |
| Toluene                     | 1000        | 996         |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| Xylenes, Total              | 3000        | 2990        |                | ug/Kg |   | 100  | 75 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 1000        | 1030        |                | ug/Kg |   | 103  | 72 - 120     | 1   | 30        |
| Benzene                     | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 1000        | 1010        |                | ug/Kg |   | 101  | 48 - 130     | 6   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-177596/5

Matrix: Solid

Analysis Batch: 177596

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                      | Spike Added      | LCSD Result      | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|------------------|------------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,2,4-Trimethylbenzene       | 1000             | 983              |                | ug/Kg |   | 98   | 73 - 120     | 1   | 30        |
| Isopropylbenzene             | 1000             | 1030             |                | ug/Kg |   | 103  | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane            | 1000             | 1000             |                | ug/Kg |   | 100  | 76 - 120     | 0   | 30        |
| <b>Surrogate</b>             |                  |                  |                |       |   |      |              |     |           |
|                              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b>  |       |   |      |              |     |           |
| 1,2-Dichloroethane-d4 (Surr) | 100              |                  | 54 - 135       |       |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr)  | 95               |                  | 50 - 131       |       |   |      |              |     |           |
| Dibromofluoromethane (Surr)  | 99               |                  | 50 - 141       |       |   |      |              |     |           |
| Toluene-d8 (Surr)            | 94               |                  | 52 - 141       |       |   |      |              |     |           |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-176910/6

Matrix: Water

Analysis Batch: 176910

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                      | MB Result        | MB Qualifier     | RL            | MDL  | Unit | D               | Prepared        | Analyzed       | Dil Fac |
|------------------------------|------------------|------------------|---------------|------|------|-----------------|-----------------|----------------|---------|
| 1,2-Dibromoethane            | ND               |                  | 1.0           | 0.30 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Ethylbenzene                 | ND               |                  | 1.0           | 0.40 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| 1,2-Dichloroethane           | ND               |                  | 1.0           | 0.30 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| 1,3,5-Trimethylbenzene       | ND               |                  | 5.0           | 0.30 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Toluene                      | ND               |                  | 1.0           | 0.30 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Xylenes, Total               | ND               |                  | 6.0           | 1.4  | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Methyl tertiary butyl ether  | ND               |                  | 1.0           | 0.20 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Benzene                      | ND               |                  | 1.0           | 0.30 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Naphthalene                  | ND               |                  | 5.0           | 1.0  | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| 1,2,4-Trimethylbenzene       | ND               |                  | 5.0           | 1.0  | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| Isopropylbenzene             | ND               |                  | 5.0           | 0.30 | ug/L |                 |                 | 09/29/21 20:08 | 1       |
| <b>Surrogate</b>             |                  |                  |               |      |      |                 |                 |                |         |
|                              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |      |      | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |         |
| 1,2-Dichloroethane-d4 (Surr) | 101              |                  | 80 - 120      |      |      |                 | 09/29/21 20:08  | 1              |         |
| 4-Bromofluorobenzene (Surr)  | 99               |                  | 80 - 120      |      |      |                 | 09/29/21 20:08  | 1              |         |
| Dibromofluoromethane (Surr)  | 95               |                  | 80 - 120      |      |      |                 | 09/29/21 20:08  | 1              |         |
| Toluene-d8 (Surr)            | 102              |                  | 80 - 120      |      |      |                 | 09/29/21 20:08  | 1              |         |

Lab Sample ID: LCS 410-176910/4

Matrix: Water

Analysis Batch: 176910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromoethane           | 20.0        | 20.1       |               | ug/L |   | 101  | 77 - 120     |
| Ethylbenzene                | 20.0        | 23.8       |               | ug/L |   | 119  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.1       |               | ug/L |   | 101  | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 23.3       |               | ug/L |   | 117  | 75 - 120     |
| Toluene                     | 20.0        | 21.1       |               | ug/L |   | 106  | 80 - 120     |
| Xylenes, Total              | 60.0        | 62.6       |               | ug/L |   | 104  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.5       |               | ug/L |   | 102  | 69 - 122     |
| Benzene                     | 20.0        | 21.9       |               | ug/L |   | 109  | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-176910/4

Matrix: Water

Analysis Batch: 176910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Naphthalene            | 20.0        | 21.6       |               | ug/L |   | 108  | 53 - 124     |
| 1,2,4-Trimethylbenzene | 20.0        | 23.3       |               | ug/L |   | 116  | 75 - 120     |
| Isopropylbenzene       | 20.0        | 20.5       |               | ug/L |   | 103  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 102           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 96            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 102           |               | 80 - 120 |

Lab Sample ID: LCSD 410-176910/5

Matrix: Water

Analysis Batch: 176910

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| 1,2-Dibromoethane           | 20.0        | 19.7        |                | ug/L |   | 98   | 77 - 120     | 2   | 30    |
| Ethylbenzene                | 20.0        | 22.5        |                | ug/L |   | 112  | 80 - 120     | 6   | 30    |
| 1,2-Dichloroethane          | 20.0        | 19.9        |                | ug/L |   | 100  | 73 - 124     | 1   | 30    |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.8        |                | ug/L |   | 109  | 75 - 120     | 7   | 30    |
| Toluene                     | 20.0        | 19.9        |                | ug/L |   | 100  | 80 - 120     | 6   | 30    |
| Xylenes, Total              | 60.0        | 59.6        |                | ug/L |   | 99   | 80 - 120     | 5   | 30    |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/L |   | 102  | 69 - 122     | 0   | 30    |
| Benzene                     | 20.0        | 20.7        |                | ug/L |   | 104  | 80 - 120     | 5   | 30    |
| Naphthalene                 | 20.0        | 20.8        |                | ug/L |   | 104  | 53 - 124     | 4   | 30    |
| 1,2,4-Trimethylbenzene      | 20.0        | 22.0        |                | ug/L |   | 110  | 75 - 120     | 6   | 30    |
| Isopropylbenzene            | 20.0        | 19.3        |                | ug/L |   | 97   | 80 - 120     | 6   | 30    |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 95             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 101            |                | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-176060/1-A

Matrix: Solid

Analysis Batch: 176968

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 176060

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-176060/1-A

Matrix: Solid

Analysis Batch: 176968

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 176060

| Analyte                 | MB<br>Result | MB<br>Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|-----------------|----------|-----|-------|---|----------------|----------------|---------|
| Pyrene                  | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Surrogate               | %Recovery    | MB<br>Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 73           |                 | 39 - 100 |     |       |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| Nitrobenzene-d5 (Surr)  | 69           |                 | 32 - 97  |     |       |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |
| p-Terphenyl-d14 (Surr)  | 82           |                 | 45 - 108 |     |       |   | 09/28/21 09:45 | 09/29/21 22:54 | 1       |

Lab Sample ID: LCS 410-176060/2-A

Matrix: Solid

Analysis Batch: 176968

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 176060

| Analyte                 | Spike<br>Added | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------------------|----------------|------------------|------------------|-------|---|------|-----------------|
| Anthracene              | 1670           | 1390             |                  | ug/Kg |   | 84   | 75 - 120        |
| Benzo[a]anthracene      | 1670           | 1490             |                  | ug/Kg |   | 89   | 73 - 120        |
| Benzo[a]pyrene          | 1670           | 1460             |                  | ug/Kg |   | 88   | 80 - 123        |
| Benzo[b]fluoranthene    | 1670           | 1470             |                  | ug/Kg |   | 88   | 63 - 120        |
| Benzo[g,h,i]perylene    | 1670           | 1330             |                  | ug/Kg |   | 80   | 77 - 120        |
| Chrysene                | 1670           | 1480             |                  | ug/Kg |   | 89   | 66 - 120        |
| Fluorene                | 1670           | 1420             |                  | ug/Kg |   | 85   | 68 - 120        |
| Phenanthrene            | 1670           | 1360             |                  | ug/Kg |   | 81   | 74 - 120        |
| Pyrene                  | 1670           | 1450             |                  | ug/Kg |   | 87   | 70 - 120        |
| Surrogate               | %Recovery      | LCS<br>Qualifier | Limits           |       |   |      |                 |
| 2-Fluorobiphenyl (Surr) | 89             |                  | 39 - 100         |       |   |      |                 |
| Nitrobenzene-d5 (Surr)  | 73             |                  | 32 - 97          |       |   |      |                 |
| p-Terphenyl-d14 (Surr)  | 88             |                  | 45 - 108         |       |   |      |                 |

Lab Sample ID: MB 410-176384/1-A

Matrix: Solid

Analysis Batch: 176610

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 176384

| Analyte                 | MB<br>Result | MB<br>Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|-----------------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Benzo[a]anthracene      | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Benzo[a]pyrene          | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Benzo[b]fluoranthene    | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Benzo[g,h,i]perylene    | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Chrysene                | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Fluorene                | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Phenanthrene            | ND           |                 | 17       | 4.0 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Pyrene                  | ND           |                 | 17       | 3.3 | ug/Kg |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Surrogate               | %Recovery    | MB<br>Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 90           |                 | 39 - 100 |     |       |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| Nitrobenzene-d5 (Surr)  | 86           |                 | 32 - 97  |     |       |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |
| p-Terphenyl-d14 (Surr)  | 104          |                 | 45 - 108 |     |       |   | 09/28/21 18:50 | 09/29/21 13:45 | 1       |

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-176384/2-A

Matrix: Solid

Analysis Batch: 176610

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 176384

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1620       |               | ug/Kg |   | 97   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1640       |               | ug/Kg |   | 98   | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1700       |               | ug/Kg |   | 102  | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1560       |               | ug/Kg |   | 94   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1760       |               | ug/Kg |   | 106  | 77 - 120     |
| Chrysene             | 1670        | 1450       |               | ug/Kg |   | 87   | 66 - 120     |
| Fluorene             | 1670        | 1520       |               | ug/Kg |   | 91   | 68 - 120     |
| Phenanthrene         | 1670        | 1530       |               | ug/Kg |   | 92   | 74 - 120     |
| Pyrene               | 1670        | 1470       |               | ug/Kg |   | 88   | 70 - 120     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 91            |               | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 85            |               | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 100           |               | 45 - 108 |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-175606/1-A

Matrix: Solid

Analysis Batch: 175938

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 175606

| Analyte | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | ND        |              | 1.5 | 0.60 | mg/Kg |   | 09/27/21 08:21 | 09/27/21 17:48 | 1       |

Lab Sample ID: LCS 410-175606/2-A

Matrix: Solid

Analysis Batch: 175938

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 175606

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 5.00        | 5.44       |               | mg/Kg |   | 109  | 80 - 120     |

Lab Sample ID: 410-56522-7 MS

Matrix: Solid

Analysis Batch: 175938

Client Sample ID: 7550-P1 (3)

Prep Type: Total/NA

Prep Batch: 175606

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Lead    | 690           |                  | 8.31        | 490       | 4            | mg/Kg | ✱ | -2444 | 75 - 125     |

Lab Sample ID: 410-56522-7 MSD

Matrix: Solid

Analysis Batch: 175938

Client Sample ID: 7550-P1 (3)

Prep Type: Total/NA

Prep Batch: 175606

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-------|
| Lead    | 690           |                  | 6.91        | 435        | 4             | mg/Kg | ✱ | -3727 | 75 - 125     | 12  | 20    |

## QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-56522-7 DU  
Matrix: Solid  
Analysis Batch: 175938

Client Sample ID: 7550-P1 (3)  
Prep Type: Total/NA  
Prep Batch: 175606

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit  | D | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--------------|-----------------|-------|---|-----|--------------|
| Lead    | 690              |                     | 690          |                 | mg/Kg | ✱ | 0.4 | 20           |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## GC/MS VOA

### Prep Batch: 175442

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-56522-13  | 7550-P4 (3)      | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 175443

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-56522-1      | 4847-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-2      | 2040-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-56522-3 - RA | 2045-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-56522-3      | 2045-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-56522-4      | 941-Center (5)   | Total/NA  | Solid  | 5035   |            |
| 410-56522-5      | 7550-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-56522-6      | 7550-P2 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-7      | 7550-P1 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-8      | 7550-P7 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-9      | 7550-P6 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-10     | 7550-P3 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-11     | UNK-ST-W (3)     | Total/NA  | Solid  | 5035   |            |
| 410-56522-12     | UNK-ST-E (3)     | Total/NA  | Solid  | 5035   |            |
| 410-56522-14     | 7550-P5 (3)      | Total/NA  | Solid  | 5035   |            |
| 410-56522-15     | 7551-Center (5)  | Total/NA  | Solid  | 5035   |            |
| 410-56522-16     | DUP-9            | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 176078

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-56522-4       | 941-Center (5)         | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-5       | 7550-Center (5)        | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-6       | 7550-P2 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-7       | 7550-P1 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-15      | 7551-Center (5)        | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-16      | DUP-9                  | Total/NA  | Solid  | 8260C  | 175443     |
| MB 410-176078/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-176078/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-176078/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 176614

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-56522-1       | 4847-P5 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-2       | 2040-Center (5)        | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-3       | 2045-Center (5)        | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-8       | 7550-P7 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-9       | 7550-P6 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-10      | 7550-P3 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-11      | UNK-ST-W (3)           | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-12      | UNK-ST-E (3)           | Total/NA  | Solid  | 8260C  | 175443     |
| 410-56522-14      | 7550-P5 (3)            | Total/NA  | Solid  | 8260C  | 175443     |
| MB 410-176614/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-176614/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-176614/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 176910

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-56522-17  | Trip Blank       | Total/NA  | Water  | 8260C/UST |            |

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## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### GC/MS VOA (Continued)

#### Analysis Batch: 176910 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| MB 410-176910/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-176910/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-176910/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

#### Analysis Batch: 177141

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-56522-3 - RA  | 2045-Center (5)        | Total/NA  | Solid  | 8260C  | 175443     |
| MB 410-177141/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-177141/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-177141/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 177596

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-56522-13      | 7550-P4 (3)            | Total/NA  | Solid  | 8260C  | 175442     |
| MB 410-177596/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-177596/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-177596/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 176060

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-56522-1        | 4847-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-2        | 2040-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-56522-3        | 2045-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-56522-4        | 941-Center (5)     | Total/NA  | Solid  | 3546   |            |
| 410-56522-5        | 7550-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-56522-6        | 7550-P2 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-7        | 7550-P1 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-8        | 7550-P7 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-9        | 7550-P6 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-10       | 7550-P3 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-11       | UNK-ST-W (3)       | Total/NA  | Solid  | 3546   |            |
| 410-56522-12       | UNK-ST-E (3)       | Total/NA  | Solid  | 3546   |            |
| MB 410-176060/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-176060/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 176384

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-56522-13       | 7550-P4 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-14       | 7550-P5 (3)        | Total/NA  | Solid  | 3546   |            |
| 410-56522-15       | 7551-Center (5)    | Total/NA  | Solid  | 3546   |            |
| 410-56522-16       | DUP-9              | Total/NA  | Solid  | 3546   |            |
| MB 410-176384/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-176384/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 176610

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-176384/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 176384     |
| LCS 410-176384/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 176384     |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## GC/MS Semi VOA

### Analysis Batch: 176621

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-56522-14  | 7550-P5 (3)      | Total/NA  | Solid  | 8270D  | 176384     |
| 410-56522-15  | 7551-Center (5)  | Total/NA  | Solid  | 8270D  | 176384     |

### Analysis Batch: 176968

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-56522-1        | 4847-P5 (3)        | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-2        | 2040-Center (5)    | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-3        | 2045-Center (5)    | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-5        | 7550-Center (5)    | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-6        | 7550-P2 (3)        | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-7        | 7550-P1 (3)        | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-8        | 7550-P7 (3)        | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-9        | 7550-P6 (3)        | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-10       | 7550-P3 (3)        | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-11       | UNK-ST-W (3)       | Total/NA  | Solid  | 8270D  | 176060     |
| 410-56522-12       | UNK-ST-E (3)       | Total/NA  | Solid  | 8270D  | 176060     |
| MB 410-176060/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 176060     |
| LCS 410-176060/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 176060     |

### Analysis Batch: 176974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-56522-13  | 7550-P4 (3)      | Total/NA  | Solid  | 8270D  | 176384     |
| 410-56522-16  | DUP-9            | Total/NA  | Solid  | 8270D  | 176384     |

### Analysis Batch: 177593

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-56522-4   | 941-Center (5)   | Total/NA  | Solid  | 8270D  | 176060     |

## Metals

### Prep Batch: 175606

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-56522-1        | 4847-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-2        | 2040-Center (5)    | Total/NA  | Solid  | 3050B  |            |
| 410-56522-3        | 2045-Center (5)    | Total/NA  | Solid  | 3050B  |            |
| 410-56522-4        | 941-Center (5)     | Total/NA  | Solid  | 3050B  |            |
| 410-56522-5        | 7550-Center (5)    | Total/NA  | Solid  | 3050B  |            |
| 410-56522-6        | 7550-P2 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-7        | 7550-P1 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-8        | 7550-P7 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-9        | 7550-P6 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-10       | 7550-P3 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-11       | UNK-ST-W (3)       | Total/NA  | Solid  | 3050B  |            |
| 410-56522-12       | UNK-ST-E (3)       | Total/NA  | Solid  | 3050B  |            |
| 410-56522-13       | 7550-P4 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-14       | 7550-P5 (3)        | Total/NA  | Solid  | 3050B  |            |
| 410-56522-15       | 7551-Center (5)    | Total/NA  | Solid  | 3050B  |            |
| 410-56522-16       | DUP-9              | Total/NA  | Solid  | 3050B  |            |
| MB 410-175606/1-A  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-175606/2-A | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-56522-7 MS     | 7550-P1 (3)        | Total/NA  | Solid  | 3050B  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Metals (Continued)

### Prep Batch: 175606 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-56522-7 MSD | 7550-P1 (3)      | Total/NA  | Solid  | 3050B  |            |
| 410-56522-7 DU  | 7550-P1 (3)      | Total/NA  | Solid  | 3050B  |            |

### Analysis Batch: 175938

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-56522-1        | 4847-P5 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-2        | 2040-Center (5)    | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-4        | 941-Center (5)     | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-5        | 7550-Center (5)    | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-6        | 7550-P2 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-7        | 7550-P1 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-8        | 7550-P7 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-9        | 7550-P6 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-10       | 7550-P3 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-11       | UNK-ST-W (3)       | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-12       | UNK-ST-E (3)       | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-13       | 7550-P4 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-14       | 7550-P5 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-15       | 7551-Center (5)    | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-16       | DUP-9              | Total/NA  | Solid  | 6010C  | 175606     |
| MB 410-175606/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 175606     |
| LCS 410-175606/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-7 MS     | 7550-P1 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-7 MSD    | 7550-P1 (3)        | Total/NA  | Solid  | 6010C  | 175606     |
| 410-56522-7 DU     | 7550-P1 (3)        | Total/NA  | Solid  | 6010C  | 175606     |

### Analysis Batch: 177354

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-56522-3   | 2045-Center (5)  | Total/NA  | Solid  | 6010C  | 175606     |

## General Chemistry

### Analysis Batch: 175542

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-56522-1   | 4847-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-2   | 2040-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-56522-3   | 2045-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-56522-4   | 941-Center (5)   | Total/NA  | Solid  | Moisture |            |
| 410-56522-5   | 7550-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-56522-6   | 7550-P2 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-7   | 7550-P1 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-8   | 7550-P7 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-9   | 7550-P6 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-10  | 7550-P3 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-11  | UNK-ST-W (3)     | Total/NA  | Solid  | Moisture |            |
| 410-56522-12  | UNK-ST-E (3)     | Total/NA  | Solid  | Moisture |            |
| 410-56522-13  | 7550-P4 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-14  | 7550-P5 (3)      | Total/NA  | Solid  | Moisture |            |
| 410-56522-15  | 7551-Center (5)  | Total/NA  | Solid  | Moisture |            |
| 410-56522-16  | DUP-9            | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: 4847-P5 (3)**

**Lab Sample ID: 410-56522-1**

Date Collected: 09/23/21 08:50

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 4847-P5 (3)**

**Lab Sample ID: 410-56522-1**

Date Collected: 09/23/21 08:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 68.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 18:15       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 01:11       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:15       | XQY5    | ELLE |

**Client Sample ID: 2040-Center (5)**

**Lab Sample ID: 410-56522-2**

Date Collected: 09/23/21 09:15

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 2040-Center (5)**

**Lab Sample ID: 410-56522-2**

Date Collected: 09/23/21 09:15

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 64.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 18:38       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 01:33       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:18       | XQY5    | ELLE |

**Client Sample ID: 2045-Center (5)**

**Lab Sample ID: 410-56522-3**

Date Collected: 09/23/21 09:30

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: 2045-Center (5)**

**Lab Sample ID: 410-56522-3**

**Date Collected: 09/23/21 09:30**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 67.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 15:33       | USEJ    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 177141       | 09/30/21 17:05       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 01:56       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 177354       | 09/30/21 13:17       | WJM9    | ELLE |

**Client Sample ID: 941-Center (5)**

**Lab Sample ID: 410-56522-4**

**Date Collected: 09/23/21 09:50**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 941-Center (5)**

**Lab Sample ID: 410-56522-4**

**Date Collected: 09/23/21 09:50**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 74.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176078       | 09/28/21 17:31       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 50              | 177593       | 10/01/21 12:55       | ULM3    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:23       | XQY5    | ELLE |

**Client Sample ID: 7550-Center (5)**

**Lab Sample ID: 410-56522-5**

**Date Collected: 09/23/21 10:24**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 7550-Center (5)**

**Lab Sample ID: 410-56522-5**

**Date Collected: 09/23/21 10:24**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 60.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176078       | 09/28/21 17:54       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 02:41       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:31       | XQY5    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: 7550-P2 (3)**

**Lab Sample ID: 410-56522-6**

Date Collected: 09/23/21 11:10

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 7550-P2 (3)**

**Lab Sample ID: 410-56522-6**

Date Collected: 09/23/21 11:10

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 71.0

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176078       | 09/28/21 18:16       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 03:04       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:34       | XQY5    | ELLE |

**Client Sample ID: 7550-P1 (3)**

**Lab Sample ID: 410-56522-7**

Date Collected: 09/23/21 11:25

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 7550-P1 (3)**

**Lab Sample ID: 410-56522-7**

Date Collected: 09/23/21 11:25

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 55.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176078       | 09/28/21 19:24       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 03:27       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 17:58       | XQY5    | ELLE |

**Client Sample ID: 7550-P7 (3)**

**Lab Sample ID: 410-56522-8**

Date Collected: 09/23/21 11:40

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: 7550-P7 (3)**

**Lab Sample ID: 410-56522-8**

**Date Collected: 09/23/21 11:40**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 61.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 15:57       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 03:49       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:37       | XQY5    | ELLE |

**Client Sample ID: 7550-P6 (3)**

**Lab Sample ID: 410-56522-9**

**Date Collected: 09/23/21 11:55**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 7550-P6 (3)**

**Lab Sample ID: 410-56522-9**

**Date Collected: 09/23/21 11:55**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 63.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 16:20       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 04:12       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:39       | XQY5    | ELLE |

**Client Sample ID: 7550-P3 (3)**

**Lab Sample ID: 410-56522-10**

**Date Collected: 09/23/21 12:05**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: 7550-P3 (3)**

**Lab Sample ID: 410-56522-10**

**Date Collected: 09/23/21 12:05**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 78.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 19:02       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 04:35       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:42       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: UNK-ST-W (3)**

**Lab Sample ID: 410-56522-11**

Date Collected: 09/23/21 12:20

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: UNK-ST-W (3)**

**Lab Sample ID: 410-56522-11**

Date Collected: 09/23/21 12:20

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 60.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 19:25       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 04:58       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:45       | XQY5    | ELLE |

**Client Sample ID: UNK-ST-E (3)**

**Lab Sample ID: 410-56522-12**

Date Collected: 09/23/21 12:30

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: UNK-ST-E (3)**

**Lab Sample ID: 410-56522-12**

Date Collected: 09/23/21 12:30

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 71.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 09:30       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 19:48       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176060       | 09/28/21 09:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176968       | 09/30/21 05:20       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:48       | XQY5    | ELLE |

**Client Sample ID: 7550-P4 (3)**

**Lab Sample ID: 410-56522-13**

Date Collected: 09/23/21 12:40

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

## Client Sample ID: 7550-P4 (3)

## Lab Sample ID: 410-56522-13

Date Collected: 09/23/21 12:40

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 78.1

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175442       | 09/26/21 10:09       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 177596       | 10/01/21 13:22       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176384       | 09/28/21 18:50       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 176974       | 09/30/21 00:09       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:51       | XQY5    | ELLE |

## Client Sample ID: 7550-P5 (3)

## Lab Sample ID: 410-56522-14

Date Collected: 09/23/21 12:50

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

## Client Sample ID: 7550-P5 (3)

## Lab Sample ID: 410-56522-14

Date Collected: 09/23/21 12:50

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 63.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 10:55       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176614       | 09/29/21 20:10       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176384       | 09/28/21 18:50       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 176621       | 09/29/21 18:54       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:54       | XQY5    | ELLE |

## Client Sample ID: 7551-Center (5)

## Lab Sample ID: 410-56522-15

Date Collected: 09/23/21 13:05

Matrix: Solid

Date Received: 09/24/21 19:31

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

## Client Sample ID: 7551-Center (5)

## Lab Sample ID: 410-56522-15

Date Collected: 09/23/21 13:05

Matrix: Solid

Date Received: 09/24/21 19:31

Percent Solids: 51.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 10:55       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176078       | 09/28/21 18:39       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176384       | 09/28/21 18:50       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176621       | 09/29/21 19:17       | UWHS    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 18:56       | XQY5    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

**Client Sample ID: DUP-9**

**Lab Sample ID: 410-56522-16**

**Date Collected: 09/23/21 00:00**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 175542       | 09/27/21 06:27       | UWC1    | ELLE |

**Client Sample ID: DUP-9**

**Lab Sample ID: 410-56522-16**

**Date Collected: 09/23/21 00:00**

**Matrix: Solid**

**Date Received: 09/24/21 19:31**

**Percent Solids: 58.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 175443       | 09/26/21 10:55       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 176078       | 09/28/21 19:02       | ULCP    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 176384       | 09/28/21 18:50       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 176974       | 09/30/21 00:33       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 175606       | 09/27/21 08:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 175938       | 09/27/21 19:04       | XQY5    | ELLE |

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-56522-17**

**Date Collected: 09/23/21 00:00**

**Matrix: Water**

**Date Received: 09/24/21 19:31**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 176910       | 09/29/21 21:00       | LCW8    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

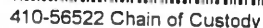
ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-56522-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 410-56522-1   | 4847-P5 (3)      | Solid  | 09/23/21 08:50 | 09/24/21 19:31 |
| 410-56522-2   | 2040-Center (5)  | Solid  | 09/23/21 09:15 | 09/24/21 19:31 |
| 410-56522-3   | 2045-Center (5)  | Solid  | 09/23/21 09:30 | 09/24/21 19:31 |
| 410-56522-4   | 941-Center (5)   | Solid  | 09/23/21 09:50 | 09/24/21 19:31 |
| 410-56522-5   | 7550-Center (5)  | Solid  | 09/23/21 10:24 | 09/24/21 19:31 |
| 410-56522-6   | 7550-P2 (3)      | Solid  | 09/23/21 11:10 | 09/24/21 19:31 |
| 410-56522-7   | 7550-P1 (3)      | Solid  | 09/23/21 11:25 | 09/24/21 19:31 |
| 410-56522-8   | 7550-P7 (3)      | Solid  | 09/23/21 11:40 | 09/24/21 19:31 |
| 410-56522-9   | 7550-P6 (3)      | Solid  | 09/23/21 11:55 | 09/24/21 19:31 |
| 410-56522-10  | 7550-P3 (3)      | Solid  | 09/23/21 12:05 | 09/24/21 19:31 |
| 410-56522-11  | UNK-ST-W (3)     | Solid  | 09/23/21 12:20 | 09/24/21 19:31 |
| 410-56522-12  | UNK-ST-E (3)     | Solid  | 09/23/21 12:30 | 09/24/21 19:31 |
| 410-56522-13  | 7550-P4 (3)      | Solid  | 09/23/21 12:40 | 09/24/21 19:31 |
| 410-56522-14  | 7550-P5 (3)      | Solid  | 09/23/21 12:50 | 09/24/21 19:31 |
| 410-56522-15  | 7551-Center (5)  | Solid  | 09/23/21 13:05 | 09/24/21 19:31 |
| 410-56522-16  | DUP-9            | Solid  | 09/23/21 00:00 | 09/24/21 19:31 |
| 410-56522-17  | Trip Blank       | Water  | 09/23/21 00:00 | 09/24/21 19:31 |



**Stories Env, LLC**

## Chain of Custody Record



Environment Testing  
America

[illegible]

Ver: 06/08/202



Environment Testing  
America

|  |  |  |  |   |  |  |  |  |  |                                       |  |
|--|--|--|--|---|--|--|--|--|--|---------------------------------------|--|
| Phone: 717-656-2500 Fax: 717-656-2001  |  | Sample: <b>DH</b>  |  | Lab PM: Carter, Amek A  |  | Camer Tracking No(s):  |  | COC No: 410-31049-9562.8                               |  |                                       |  |
| Client Information   |  | Client Contact: Mark Schaeffer   |  | Phone: <b>484 467 3657</b>  |  | E-Mail: Loran.Carter@eurofinset.com  |  | State of Origin: <b>PA</b>                             |  |                                       |  |
| Company: Stantec Consulting Corp.  |  | Address: 1060 Andrew Drive Suite 140   |  | City: West Chester  |  | State, Zip: PA, 19380  |  | Phone: mark.schaeffer@stantec.com                      |  |                                       |  |
| Due Date Requested:  |  | TAT Requested (days): <b>5 day</b>   |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  | PO #:  |  | Purchase Order Requested                               |  |                                       |  |
| Email: mark.schaeffer@stantec.com  |  | Project Name: PBF Logistics  |  | Project #: 41007459   |  | SSOW#:   |  | WO #:  |  |                                       |  |
| Site: <b>51st Street Terminal</b>  |  | Sample Identification  |  | Sample Date   |  | Sample Time  |  | Sample Type (C=comp, G=grab)                           |  |                                       |  |
| Matrix (W=water, S=solid, O=oil, BT=tissue, A=air)                             |  | Preservation Code  |  | Field Filtered Sample Type  |  | 260C - PA Combo of Leaded and Unleaded Gasoline  |  | 6010C, 8270D, Moisture                                 |  |                                       |  |
| 8260C UST - PA Combo of Leaded and Unleaded Gasoline                           |  | Number of Containers   |  | Analysis Requested  |  | Preservation Codes:  |  | Other:   |  |                                       |  |
| A - HCL  |  | M - Hexane   |  | B - NaOH  |  | N - None   |  | C - Zn Acetate   |  | O - AsNaO2                            |  |
| D - Nitric Acid  |  | P - Na2O4S   |  | E - NaHSO4  |  | Q - Na2SO3   |  | F - MeOH   |  | R - Na2S2O3                           |  |
| G - Amchlor  |  | S - H2SO4  |  | H - Ascorbic Acid   |  | T - TSP Dodecahydrate  |  | I - Ice  |  | U - Acetone                           |  |
| J - DI Water   |  | V - MCAA   |  | K - EDTA  |  | W - pH 4-5   |  | L - EDA  |  | Z - other (specify)                   |  |
| Special Instructions/Notes:  |  |  |  |   |  |  |  |  |  |                                       |  |
| Possible Hazard Identification   |  | <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)     |  | <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  | Deliverable Requested: I, II, III, IV, Other (specify) |  | Special Instructions/QC Requirements: |  |
| Empty Kit Relinquished by:   |  | Date:  |  | Time:   |  | Method of Shipment:  |  | Relinquished by: <b>Mark</b>                           |  | Date/Time: <b>9-24-21 1340</b>        |  |
| Relinquished by: <b>Mark</b>   |  | Date/Time: <b>9-24-21 1910</b>   |  | Company: <b>Stantec</b>   |  | Received by: <b>Mark</b>   |  | Date/Time: <b>9-24-21 1931</b>                         |  | Company: <b>ELL</b>                   |  |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No |  | Custody Seal No.:  |  | Cooler Temperature(s) °C and Other Remarks: <b>20.4</b>                                 |  |  |  |  |  |                                       |  |

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-56522-1

**Login Number: 56522**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

**List Number: 1**

**Creator: Hess, Anna**

| Question  | Answer | Comment                             |
|---|--------|-------------------------------------|
| The cooler's custody seal is intact.  | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.    | True   |                                     |
| Samples were received on ice.   | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).        | True   |                                     |
| Cooler Temperature is recorded.   | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen). | N/A    |                                     |
| WV: Container Temperature is recorded.  | N/A    |                                     |
| COC is present.   | True   |                                     |
| COC is filled out in ink and legible.   | True   |                                     |
| COC is filled out with all pertinent information.                                 | True   |                                     |
| There are no discrepancies between the containers received and the COC.           | False  | Refer to Job Narrative for details. |
| Sample containers have legible labels.  | True   |                                     |
| Containers are not broken or leaking.   | True   |                                     |
| Sample collection date/times are provided.  | True   |                                     |
| Appropriate sample containers are used.   | True   |                                     |
| Sample bottles are completely filled.   | True   |                                     |
| There is sufficient vol. for all requested analyses.                              | True   |                                     |
| Is the Field Sampler's name present on COC?                                       | True   |                                     |
| Sample custody seals are intact.  | True   |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-57140-1  
Client Project/Site: PBF Logistics

**For:**

Stantec Consulting Corp.  
1060 Andrew Drive  
Suite 140  
West Chester, Pennsylvania 19380

Attn: Mark Schaeffer



Authorized for release by:  
10/7/2021 5:17:21 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
|----|
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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter  
Project Manager  
10/7/2021 5:17:21 PM

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## Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| ^c        | CCV Recovery is outside acceptance limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1-       | Surrogate recovery exceeds control limits, low biased.   |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| 1C             | Result is from the primary column on a dual-column method.  |
| 2C             | Result is from the confirmation column on a dual-column method.   |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

## Case Narrative

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### Job ID: 410-57140-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-57140-1

##### Receipt

The samples were received on 9/30/2021 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

##### GC/MS VOA

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: 7551 - East (5) (410-57140-5). Elevated reporting limits (RLs) are provided.

Method 8260C\_UST: Internal standard (ISTD) response for t-Butyl alcohol-d10 for the following sample was outside acceptance criteria: Trip Blank (410-57140-6). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8260C\_UST: The continuing calibration verification (CCV) associated with batch 410-178934 recovered above the upper control limit for 1,3,5-Trimethylbenzene and 1,2,4-Trimethylbenzene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

##### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### Client Sample ID: 7550 - North (2.5)

### Lab Sample ID: 410-57140-1

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 0.85   | J         | 4.2 | 0.42 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 1.0    | J         | 4.2 | 0.42 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Lead                   | 1.6    |           | 1.5 | 0.62 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550 - South (2.25)

### Lab Sample ID: 410-57140-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 3.8    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 5.7    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 6.3    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 5.5    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 4.1    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 5.1    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 5.6    |           | 1.6 | 0.64 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7550 - East (2)

### Lab Sample ID: 410-57140-3

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Benzo[a]anthracene   | 6.9    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 8.8    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 10     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 7.2    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 7.9    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 6.6    | J         | 19  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 12     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                 | 3.2    |           | 1.5 | 0.61 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551 - North (5)

### Lab Sample ID: 410-57140-4

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene      | 1.7    | J         | 9.1 | 0.91 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                     | 2.3    | J         | 9.1 | 1.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 6.5    | J         | 9.1 | 0.91 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 21     | J         | 28  | 5.7  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 8.2    | J         | 28  | 6.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 13     |           | 2.5 | 1.0  | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

### Client Sample ID: 7551 - East (5)

### Lab Sample ID: 410-57140-5

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene      | 81     | J         | 580 | 58   | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 240    | J         | 580 | 58   | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene      | 170    | J         | 580 | 58   | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| Anthracene                  | 630    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 500    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 270    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 430    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 180    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 530    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                    | 780    |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 4000   |           | 19  | 4.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 1800   |           | 19  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Lead                        | 36     |           | 1.6 | 0.66 | mg/Kg | 1       | ✱ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: Trip Blank

Lab Sample ID: 410-57140-6

No Detections.

Client Sample ID: 7551 - South (5)

Lab Sample ID: 410-57140-7

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Anthracene           | 59     |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 190    |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 160    |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 190    |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 110    |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Chrysene             | 160    |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Fluorene             | 17     | J         | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Phenanthrene         | 190    |           | 22  | 5.3  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Pyrene               | 320    |           | 22  | 4.4  | ug/Kg | 1       | ✳ | 8270D  | Total/NA  |
| Lead                 | 32     |           | 2.0 | 0.79 | mg/Kg | 1       | ✳ | 6010C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: 7550 - North (2.5)

Lab Sample ID: 410-57140-1

Date Collected: 09/29/21 11:50

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 90.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 4.2 | 0.34 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.2 | 0.51 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| 1,3,5-Trimethylbenzene      | 0.85   | J         | 4.2 | 0.42 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Toluene                     | ND     |           | 4.2 | 0.51 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Xylenes, Total              | ND     |           | 8.5 | 1.2  | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Benzene                     | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Naphthalene                 | ND     |           | 4.2 | 1.7  | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| 1,2,4-Trimethylbenzene      | 1.0    | J         | 4.2 | 0.42 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Isopropylbenzene            | ND     |           | 4.2 | 0.34 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| 1,2-Dibromoethane           | ND     |           | 4.2 | 0.34 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 17:42 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 54 - 135 | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 50 - 141 | 10/01/21 09:17 | 10/03/21 17:42 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 10/01/21 09:17 | 10/03/21 17:42 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Benzo[a]anthracene   | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Benzo[a]pyrene       | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Benzo[b]fluoranthene | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Chrysene             | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Fluorene             | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Phenanthrene         | ND     |           | 18 | 4.3 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Pyrene               | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 10/01/21 18:40 | 10/07/21 01:51 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 85        |           | 39 - 100 | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| Nitrobenzene-d5 (Surr)  | 75        |           | 32 - 97  | 10/01/21 18:40 | 10/07/21 01:51 | 1       |
| p-Terphenyl-d14 (Surr)  | 101       |           | 45 - 108 | 10/01/21 18:40 | 10/07/21 01:51 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 1.6    |           | 1.5 | 0.62 | mg/Kg | ☼ | 09/30/21 13:37 | 10/01/21 19:16 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.1    |           | 1.0 | 1.0 | %    |   |          | 09/30/21 12:19 | 1       |

Client Sample ID: 7550 - South (2.25)

Lab Sample ID: 410-57140-2

Date Collected: 09/29/21 12:10

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 86.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene       | ND     |           | 5.5 | 0.44 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| 1,2-Dichloroethane | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: 7550 - South (2.25)

Lab Sample ID: 410-57140-2

Date Collected: 09/29/21 12:10

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 86.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene       | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Toluene                      | ND        |           | 5.5      | 0.66 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Benzene                      | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Naphthalene                  | ND        |           | 5.5      | 2.2  | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.5      | 0.55 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Isopropylbenzene             | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.5      | 0.44 | ug/Kg | ✱ | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 113       |           | 54 - 135 |      |       |   | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 |      |       |   | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Dibromofluoromethane (Surr)  | 108       |           | 50 - 141 |      |       |   | 10/01/21 09:17 | 10/03/21 20:47 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 |      |       |   | 10/01/21 09:17 | 10/03/21 20:47 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Benzo[a]anthracene      | 3.8       | J         | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Benzo[a]pyrene          | 5.7       | J         | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Benzo[b]fluoranthene    | 6.3       | J         | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Benzo[g,h,i]perylene    | 5.5       | J         | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Chrysene                | 4.1       | J         | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Fluorene                | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Phenanthrene            | ND        |           | 19       | 4.6 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Pyrene                  | 5.1       | J         | 19       | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 |     |       |   | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  |     |       |   | 10/01/21 18:40 | 10/07/21 02:14 | 1       |
| p-Terphenyl-d14 (Surr)  | 102       |           | 45 - 108 |     |       |   | 10/01/21 18:40 | 10/07/21 02:14 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 5.6    |           | 1.6 | 0.64 | mg/Kg | ✱ | 09/30/21 13:37 | 10/05/21 12:19 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.3   |           | 1.0 | 1.0 | %    |   |          | 09/30/21 12:19 | 1       |

Client Sample ID: 7550 - East (2)

Lab Sample ID: 410-57140-3

Date Collected: 09/29/21 12:30

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 87.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene           | ND     |           | 4.3 | 0.34 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| 1,2-Dichloroethane     | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Toluene                | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: 7550 - East (2)

Lab Sample ID: 410-57140-3

Date Collected: 09/29/21 12:30

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 87.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Xylenes, Total              | ND     |           | 8.6 | 1.2  | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Benzene                     | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Naphthalene                 | ND     |           | 4.3 | 1.7  | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Isopropylbenzene            | ND     |           | 4.3 | 0.34 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| 1,2-Dibromoethane           | ND     |           | 4.3 | 0.34 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:06 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 54 - 135 | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 10/01/21 11:11 | 10/03/21 18:06 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 | 10/01/21 11:11 | 10/03/21 18:06 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Benzo[a]anthracene   | 6.9    | J         | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Benzo[a]pyrene       | 8.8    | J         | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Benzo[b]fluoranthene | 10     | J         | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Benzo[g,h,i]perylene | 7.2    | J         | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Chrysene             | 7.9    | J         | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Fluorene             | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Phenanthrene         | 6.6    | J         | 19 | 4.6 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Pyrene               | 12     | J         | 19 | 3.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 02:37 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 84        |           | 39 - 100 | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| Nitrobenzene-d5 (Surr)  | 76        |           | 32 - 97  | 10/01/21 18:40 | 10/07/21 02:37 | 1       |
| p-Terphenyl-d14 (Surr)  | 102       |           | 45 - 108 | 10/01/21 18:40 | 10/07/21 02:37 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 3.2    |           | 1.5 | 0.61 | mg/Kg | ✱ | 09/30/21 13:37 | 10/01/21 19:19 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.4   |           | 1.0 | 1.0 | %    |   |          | 09/30/21 12:19 | 1       |

Client Sample ID: 7551 - North (5)

Lab Sample ID: 410-57140-4

Date Collected: 09/29/21 13:00

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 58.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 9.1 | 0.73 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| 1,2-Dichloroethane          | ND     |           | 9.1 | 1.1  | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| 1,3,5-Trimethylbenzene      | 1.7    | J         | 9.1 | 0.91 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Toluene                     | 2.3    | J         | 9.1 | 1.1  | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Xylenes, Total              | ND     |           | 18  | 2.6  | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Methyl tertiary butyl ether | 6.5    | J         | 9.1 | 0.91 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: 7551 - North (5)

Lab Sample ID: 410-57140-4

Date Collected: 09/29/21 13:00

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 58.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                | ND     |           | 9.1 | 0.91 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Naphthalene            | ND     |           | 9.1 | 3.7  | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 9.1 | 0.91 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Isopropylbenzene       | ND     |           | 9.1 | 0.73 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| 1,2-Dibromoethane      | ND     |           | 9.1 | 0.73 | ug/Kg | ✱ | 10/01/21 11:11 | 10/03/21 18:29 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 110       |           | 54 - 135 | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Dibromofluoromethane (Surr)  | 36        | S1-       | 50 - 141 | 10/01/21 11:11 | 10/03/21 18:29 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 10/01/21 11:11 | 10/03/21 18:29 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | 21     | J         | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Benzo[a]anthracene   | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Benzo[a]pyrene       | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Benzo[b]fluoranthene | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Chrysene             | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Fluorene             | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Phenanthrene         | 8.2    | J         | 28 | 6.8 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Pyrene               | ND     |           | 28 | 5.7 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:01 | 1       |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 45        |           | 39 - 100 | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| Nitrobenzene-d5 (Surr)  | 44        |           | 32 - 97  | 10/01/21 18:40 | 10/07/21 03:01 | 1       |
| p-Terphenyl-d14 (Surr)  | 60        |           | 45 - 108 | 10/01/21 18:40 | 10/07/21 03:01 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Lead    | 13     |           | 2.5 | 1.0 | mg/Kg | ✱ | 09/30/21 13:37 | 10/01/21 19:03 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 41.8   |           | 1.0 | 1.0 | %    |   |          | 09/30/21 12:19 | 1       |

Client Sample ID: 7551 - East (5)

Lab Sample ID: 410-57140-5

Date Collected: 09/29/21 13:20

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 86.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Ethylbenzene                | ND     |           | 580  | 46  | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| 1,2-Dichloroethane          | ND     |           | 580  | 70  | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| 1,3,5-Trimethylbenzene      | 81     | J         | 580  | 58  | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Toluene                     | ND     |           | 580  | 70  | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Xylenes, Total              | ND     |           | 1200 | 160 | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Methyl tertiary butyl ether | 240    | J         | 580  | 58  | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Benzene                     | ND     |           | 580  | 58  | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Naphthalene                 | ND     |           | 580  | 230 | ug/Kg | ✱ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: 7551 - East (5)

Lab Sample ID: 410-57140-5

Date Collected: 09/29/21 13:20

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 86.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene       | 170       | J         | 580      | 58  | ug/Kg | ☆ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Isopropylbenzene             | ND        |           | 580      | 46  | ug/Kg | ☆ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| 1,2-Dibromoethane            | ND        |           | 580      | 46  | ug/Kg | ☆ | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 94        |           | 54 - 135 |     |       |   | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 |     |       |   | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Dibromofluoromethane (Surr)  | 86        |           | 50 - 141 |     |       |   | 10/01/21 11:16 | 10/04/21 18:39 | 100     |
| Toluene-d8 (Surr)            | 87        |           | 52 - 141 |     |       |   | 10/01/21 11:16 | 10/04/21 18:39 | 100     |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 630       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Benzo[a]anthracene      | 500       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Benzo[a]pyrene          | 270       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Benzo[b]fluoranthene    | 430       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Benzo[g,h,i]perylene    | 180       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Chrysene                | 530       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Fluorene                | 780       |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Phenanthrene            | 4000      |           | 19       | 4.6 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Pyrene                  | 1800      |           | 19       | 3.9 | ug/Kg | ☆ | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 64        |           | 39 - 100 |     |       |   | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| Nitrobenzene-d5 (Surr)  | 64        |           | 32 - 97  |     |       |   | 10/01/21 18:40 | 10/07/21 03:24 | 1       |
| p-Terphenyl-d14 (Surr)  | 80        |           | 45 - 108 |     |       |   | 10/01/21 18:40 | 10/07/21 03:24 | 1       |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 36     |           | 1.6 | 0.66 | mg/Kg | ☆ | 09/30/21 13:37 | 10/01/21 19:09 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.6   |           | 1.0 | 1.0 | %    |   |          | 09/30/21 12:19 | 1       |

Client Sample ID: Trip Blank

Lab Sample ID: 410-57140-6

Date Collected: 09/29/21 00:00

Matrix: Water

Date Received: 09/30/21 08:50

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane           | ND     |           | 1.0 | 0.30 | ug/L |   |          | 10/05/21 15:53 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 10/05/21 15:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 10/05/21 15:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | ^c        | 5.0 | 0.30 | ug/L |   |          | 10/05/21 15:53 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 10/05/21 15:53 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 10/05/21 15:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 10/05/21 15:53 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 10/05/21 15:53 | 1       |
| Naphthalene                 | ND     |           | 5.0 | 1.0  | ug/L |   |          | 10/05/21 15:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | ^c        | 5.0 | 1.0  | ug/L |   |          | 10/05/21 15:53 | 1       |

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# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: Trip Blank

Lab Sample ID: 410-57140-6

Date Collected: 09/29/21 00:00

Matrix: Water

Date Received: 09/30/21 08:50

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Isopropylbenzene             | ND        |           | 5.0      | 0.30 | ug/L |   |          | 10/05/21 15:53 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 95        |           | 80 - 120 |      |      |   |          | 10/05/21 15:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 80 - 120 |      |      |   |          | 10/05/21 15:53 | 1       |
| Dibromofluoromethane (Surr)  | 96        |           | 80 - 120 |      |      |   |          | 10/05/21 15:53 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 80 - 120 |      |      |   |          | 10/05/21 15:53 | 1       |

Client Sample ID: 7551 - South (5)

Lab Sample ID: 410-57140-7

Date Collected: 09/29/21 13:40

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 73.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Ethylbenzene                 | ND        |           | 5.4      | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| 1,2-Dichloroethane           | ND        |           | 5.4      | 0.65 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| 1,3,5-Trimethylbenzene       | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Toluene                      | ND        |           | 5.4      | 0.65 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Methyl tertiary butyl ether  | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Benzene                      | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Naphthalene                  | ND        |           | 5.4      | 2.2  | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| 1,2,4-Trimethylbenzene       | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Isopropylbenzene             | ND        |           | 5.4      | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| 1,2-Dibromoethane            | ND        |           | 5.4      | 0.43 | ug/Kg | ✱ | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 120       |           | 54 - 135 |      |       |   | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 |      |       |   | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Dibromofluoromethane (Surr)  | 108       |           | 50 - 141 |      |       |   | 10/01/21 11:11 | 10/05/21 15:49 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 |      |       |   | 10/01/21 11:11 | 10/05/21 15:49 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                 | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene              | 59        |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Benzo[a]anthracene      | 190       |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Benzo[a]pyrene          | 160       |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Benzo[b]fluoranthene    | 190       |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Benzo[g,h,i]perylene    | 110       |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Chrysene                | 160       |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Fluorene                | 17 J      |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Phenanthrene            | 190       |           | 22       | 5.3 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Pyrene                  | 320       |           | 22       | 4.4 | ug/Kg | ✱ | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Surrogate               | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr) | 83        |           | 39 - 100 |     |       |   | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| Nitrobenzene-d5 (Surr)  | 74        |           | 32 - 97  |     |       |   | 10/01/21 18:40 | 10/07/21 03:47 | 1       |
| p-Terphenyl-d14 (Surr)  | 96        |           | 45 - 108 |     |       |   | 10/01/21 18:40 | 10/07/21 03:47 | 1       |

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

Client Sample ID: 7551 - South (5)

Lab Sample ID: 410-57140-7

Date Collected: 09/29/21 13:40

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 73.8

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Lead    | 32     |           | 2.0 | 0.79 | mg/Kg | ☼ | 09/30/21 13:37 | 10/01/21 19:22 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 26.2   |           | 1.0 | 1.0 | %    |   |          | 09/30/21 12:19 | 1       |

## Surrogate Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-57140-1                        | 7550 - North (2.5)     | 114  | 93              | 104              | 95              |
| 410-57140-2                        | 7550 - South (2.25)    | 113  | 92              | 108              | 96              |
| 410-57140-3                        | 7550 - East (2)        | 110  | 91              | 105              | 94              |
| 410-57140-4                        | 7551 - North (5)       | 110  | 94              | 36 S1-           | 97              |
| 410-57140-5                        | 7551 - East (5)        | 94   | 92              | 86               | 87              |
| 410-57140-7                        | 7551 - South (5)       | 120  | 93              | 108              | 95              |
| LCS 410-178181/4                   | Lab Control Sample     | 104  | 96              | 104              | 98              |
| LCS 410-178968/4                   | Lab Control Sample     | 106  | 96              | 106              | 99              |
| LCSD 410-178181/5                  | Lab Control Sample Dup | 103  | 95              | 103              | 99              |
| LCSD 410-178968/5                  | Lab Control Sample Dup | 103  | 96              | 105              | 98              |
| MB 410-178181/7                    | Method Blank           | 106  | 94              | 106              | 97              |
| MB 410-178968/7                    | Method Blank           | 107  | 91              | 108              | 95              |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

### Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|--|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-57140-6                        | Trip Blank             | 95   | 99              | 96               | 102             |
| LCS 410-178934/4                   | Lab Control Sample     | 102  | 100             | 96               | 103             |
| LCSD 410-178934/5                  | Lab Control Sample Dup | 101  | 102             | 95               | 103             |
| MB 410-178934/6                    | Method Blank           | 100  | 99              | 96               | 102             |
| <b>Surrogate Legend</b>            |                        |  |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |  |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |  |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |  |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |  |                 |                  |                 |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID           | Client Sample ID    | Percent Surrogate Recovery (Acceptance Limits) |                |                    |
|-------------------------|---------------------|--|----------------|--------------------|
|                         |                     | FBP<br>(39-100)                                | NBZ<br>(32-97) | TPHd14<br>(45-108) |
| 410-57140-1             | 7550 - North (2.5)  | 85   | 75             | 101                |
| 410-57140-2             | 7550 - South (2.25) | 84   | 74             | 102                |
| 410-57140-3             | 7550 - East (2)     | 84   | 76             | 102                |
| 410-57140-4             | 7551 - North (5)    | 45   | 44             | 60                 |
| 410-57140-5             | 7551 - East (5)     | 64   | 64             | 80                 |
| 410-57140-7             | 7551 - South (5)    | 83   | 74             | 96                 |
| LCS 410-177890/2-A      | Lab Control Sample  | 87   | 78             | 98                 |
| MB 410-177890/1-A       | Method Blank        | 89   | 79             | 106                |
| <b>Surrogate Legend</b> |                     |  |                |                    |

## Surrogate Summary

Client: Stantec Consulting Corp.

Project/Site: PBF Logistics

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Job ID: 410-57140-1

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-178181/7

Matrix: Solid

Analysis Batch: 178181

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 10/03/21 15:57 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 10/03/21 15:57 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 106          |              | 54 - 135 |          | 10/03/21 15:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94           |              | 50 - 131 |          | 10/03/21 15:57 | 1       |
| Dibromofluoromethane (Surr)  | 106          |              | 50 - 141 |          | 10/03/21 15:57 | 1       |
| Toluene-d8 (Surr)            | 97           |              | 52 - 141 |          | 10/03/21 15:57 | 1       |

Lab Sample ID: LCS 410-178181/4

Matrix: Solid

Analysis Batch: 178181

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene                | 20.0        | 17.9       |               | ug/Kg |   | 89   | 78 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.9       |               | ug/Kg |   | 99   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.2       |               | ug/Kg |   | 86   | 73 - 120     |
| Toluene                     | 20.0        | 17.8       |               | ug/Kg |   | 89   | 80 - 120     |
| Xylenes, Total              | 60.0        | 55.7       |               | ug/Kg |   | 93   | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.0       |               | ug/Kg |   | 100  | 72 - 120     |
| Benzene                     | 20.0        | 18.7       |               | ug/Kg |   | 94   | 80 - 120     |
| Naphthalene                 | 20.0        | 18.6       |               | ug/Kg |   | 93   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.3       |               | ug/Kg |   | 87   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 18.2       |               | ug/Kg |   | 91   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 19.5       |               | ug/Kg |   | 98   | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 96            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 104           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-178181/5

Matrix: Solid

Analysis Batch: 178181

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene       | 20.0        | 17.4        |                | ug/Kg |   | 87   | 78 - 120     | 3   | 30        |
| 1,2-Dichloroethane | 20.0        | 19.6        |                | ug/Kg |   | 98   | 71 - 128     | 1   | 30        |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-178181/5

Matrix: Solid

Analysis Batch: 178181

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 16.9        |                | ug/Kg |   | 85   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 17.4        |                | ug/Kg |   | 87   | 80 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 53.7        |                | ug/Kg |   | 90   | 75 - 120     | 4   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.1        |                | ug/Kg |   | 95   | 72 - 120     | 5   | 30        |
| Benzene                     | 20.0        | 18.1        |                | ug/Kg |   | 90   | 80 - 120     | 3   | 30        |
| Naphthalene                 | 20.0        | 17.8        |                | ug/Kg |   | 89   | 48 - 130     | 4   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.4        |                | ug/Kg |   | 87   | 73 - 120     | 1   | 30        |
| Isopropylbenzene            | 20.0        | 17.8        |                | ug/Kg |   | 89   | 77 - 120     | 2   | 30        |
| 1,2-Dibromoethane           | 20.0        | 19.0        |                | ug/Kg |   | 95   | 76 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 95             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 103            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

Lab Sample ID: MB 410-178968/7

Matrix: Solid

Analysis Batch: 178968

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 10/05/21 15:08 | 1       |
| 1,2-Dibromoethane           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 10/05/21 15:08 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107          |              | 54 - 135 |          | 10/05/21 15:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91           |              | 50 - 131 |          | 10/05/21 15:08 | 1       |
| Dibromofluoromethane (Surr)  | 108          |              | 50 - 141 |          | 10/05/21 15:08 | 1       |
| Toluene-d8 (Surr)            | 95           |              | 52 - 141 |          | 10/05/21 15:08 | 1       |

Lab Sample ID: LCS 410-178968/4

Matrix: Solid

Analysis Batch: 178968

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Ethylbenzene           | 20.0        | 19.2       |               | ug/Kg |   | 96   | 78 - 120     |
| 1,2-Dichloroethane     | 20.0        | 20.6       |               | ug/Kg |   | 103  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 20.0        | 18.3       |               | ug/Kg |   | 92   | 73 - 120     |
| Toluene                | 20.0        | 19.1       |               | ug/Kg |   | 96   | 80 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-178968/4

Matrix: Solid

Analysis Batch: 178968

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Xylenes, Total              | 60.0        | 59.9       |               | ug/Kg |   | 100  | 75 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.5       |               | ug/Kg |   | 102  | 72 - 120     |
| Benzene                     | 20.0        | 20.1       |               | ug/Kg |   | 100  | 80 - 120     |
| Naphthalene                 | 20.0        | 18.8       |               | ug/Kg |   | 94   | 48 - 130     |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.6       |               | ug/Kg |   | 93   | 73 - 120     |
| Isopropylbenzene            | 20.0        | 19.9       |               | ug/Kg |   | 99   | 77 - 120     |
| 1,2-Dibromoethane           | 20.0        | 20.4       |               | ug/Kg |   | 102  | 76 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 106           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 96            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 106           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-178968/5

Matrix: Solid

Analysis Batch: 178968

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Ethylbenzene                | 20.0        | 18.9        |                | ug/Kg |   | 94   | 78 - 120     | 2   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.8        |                | ug/Kg |   | 104  | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 18.8        |                | ug/Kg |   | 94   | 80 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 59.1        |                | ug/Kg |   | 99   | 75 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.6        |                | ug/Kg |   | 103  | 72 - 120     | 1   | 30        |
| Benzene                     | 20.0        | 20.0        |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 18.4        |                | ug/Kg |   | 92   | 48 - 130     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.2        |                | ug/Kg |   | 91   | 73 - 120     | 3   | 30        |
| Isopropylbenzene            | 20.0        | 19.7        |                | ug/Kg |   | 98   | 77 - 120     | 1   | 30        |
| 1,2-Dibromoethane           | 20.0        | 20.4        |                | ug/Kg |   | 102  | 76 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 96             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 105            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-178934/6

Matrix: Water

Analysis Batch: 178934

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dibromoethane      | ND        |              | 1.0 | 0.30 | ug/L |   |          | 10/05/21 13:06 | 1       |
| Ethylbenzene           | ND        |              | 1.0 | 0.40 | ug/L |   |          | 10/05/21 13:06 | 1       |
| 1,2-Dichloroethane     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 10/05/21 13:06 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 10/05/21 13:06 | 1       |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-178934/6

Matrix: Water

Analysis Batch: 178934

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Toluene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 10/05/21 13:06 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 10/05/21 13:06 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 10/05/21 13:06 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 10/05/21 13:06 | 1       |
| Naphthalene                 | ND        |              | 5.0 | 1.0  | ug/L |   |          | 10/05/21 13:06 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 10/05/21 13:06 | 1       |
| Isopropylbenzene            | ND        |              | 5.0 | 0.30 | ug/L |   |          | 10/05/21 13:06 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 80 - 120 |          | 10/05/21 13:06 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99           |              | 80 - 120 |          | 10/05/21 13:06 | 1       |
| Dibromofluoromethane (Surr)  | 96           |              | 80 - 120 |          | 10/05/21 13:06 | 1       |
| Toluene-d8 (Surr)            | 102          |              | 80 - 120 |          | 10/05/21 13:06 | 1       |

Lab Sample ID: LCS 410-178934/4

Matrix: Water

Analysis Batch: 178934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,2-Dibromoethane           | 20.0        | 19.7       |               | ug/L |   | 99   | 77 - 120     |
| Ethylbenzene                | 20.0        | 22.3       |               | ug/L |   | 112  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.1       |               | ug/L |   | 96   | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.5       |               | ug/L |   | 108  | 75 - 120     |
| Toluene                     | 20.0        | 19.5       |               | ug/L |   | 98   | 80 - 120     |
| Xylenes, Total              | 60.0        | 58.4       |               | ug/L |   | 97   | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.7       |               | ug/L |   | 99   | 69 - 122     |
| Benzene                     | 20.0        | 20.5       |               | ug/L |   | 102  | 80 - 120     |
| Naphthalene                 | 20.0        | 21.6       |               | ug/L |   | 108  | 53 - 124     |
| 1,2,4-Trimethylbenzene      | 20.0        | 21.4       |               | ug/L |   | 107  | 75 - 120     |
| Isopropylbenzene            | 20.0        | 19.3       |               | ug/L |   | 96   | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102           |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 96            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 103           |               | 80 - 120 |

Lab Sample ID: LCSD 410-178934/5

Matrix: Water

Analysis Batch: 178934

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| 1,2-Dibromoethane      | 20.0        | 19.5        |                | ug/L |   | 98   | 77 - 120     | 1   | 30    |
| Ethylbenzene           | 20.0        | 22.5        |                | ug/L |   | 112  | 80 - 120     | 1   | 30    |
| 1,2-Dichloroethane     | 20.0        | 19.1        |                | ug/L |   | 95   | 73 - 124     | 0   | 30    |
| 1,3,5-Trimethylbenzene | 20.0        | 21.5        |                | ug/L |   | 107  | 75 - 120     | 0   | 30    |
| Toluene                | 20.0        | 19.6        |                | ug/L |   | 98   | 80 - 120     | 1   | 30    |
| Xylenes, Total         | 60.0        | 58.7        |                | ug/L |   | 98   | 80 - 120     | 1   | 30    |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-178934/5

Matrix: Water

Analysis Batch: 178934

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 20.0        | 19.8        |                | ug/L |   | 99   | 69 - 122     | 0   | 30        |
| Benzene                     | 20.0        | 20.3        |                | ug/L |   | 101  | 80 - 120     | 1   | 30        |
| Naphthalene                 | 20.0        | 19.8        |                | ug/L |   | 99   | 53 - 124     | 8   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 21.4        |                | ug/L |   | 107  | 75 - 120     | 0   | 30        |
| Isopropylbenzene            | 20.0        | 19.2        |                | ug/L |   | 96   | 80 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 102            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 95             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 103            |                | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-177890/1-A

Matrix: Solid

Analysis Batch: 179769

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177890

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Anthracene           | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Benzo[a]anthracene   | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Benzo[a]pyrene       | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Benzo[b]fluoranthene | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Benzo[g,h,i]perylene | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Chrysene             | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Fluorene             | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Phenanthrene         | ND        |              | 17 | 4.0 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Pyrene               | ND        |              | 17 | 3.3 | ug/Kg |   | 10/01/21 18:40 | 10/06/21 22:20 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 89           |              | 39 - 100 | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| Nitrobenzene-d5 (Surr)  | 79           |              | 32 - 97  | 10/01/21 18:40 | 10/06/21 22:20 | 1       |
| p-Terphenyl-d14 (Surr)  | 106          |              | 45 - 108 | 10/01/21 18:40 | 10/06/21 22:20 | 1       |

Lab Sample ID: LCS 410-177890/2-A

Matrix: Solid

Analysis Batch: 179769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177890

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Anthracene           | 1670        | 1580       |               | ug/Kg |   | 95   | 75 - 120     |
| Benzo[a]anthracene   | 1670        | 1680       |               | ug/Kg |   | 101  | 73 - 120     |
| Benzo[a]pyrene       | 1670        | 1660       |               | ug/Kg |   | 99   | 80 - 123     |
| Benzo[b]fluoranthene | 1670        | 1550       |               | ug/Kg |   | 93   | 63 - 120     |
| Benzo[g,h,i]perylene | 1670        | 1790       |               | ug/Kg |   | 107  | 77 - 120     |
| Chrysene             | 1670        | 1550       |               | ug/Kg |   | 93   | 66 - 120     |
| Fluorene             | 1670        | 1460       |               | ug/Kg |   | 88   | 68 - 120     |
| Phenanthrene         | 1670        | 1510       |               | ug/Kg |   | 91   | 74 - 120     |
| Pyrene               | 1670        | 1450       |               | ug/Kg |   | 87   | 70 - 120     |

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# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-177890/2-A

Matrix: Solid

Analysis Batch: 179769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177890

|                         | LCS       | LCS       |          |
|-------------------------|-----------|-----------|----------|
| Surrogate               | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr) | 87        |           | 39 - 100 |
| Nitrobenzene-d5 (Surr)  | 78        |           | 32 - 97  |
| p-Terphenyl-d14 (Surr)  | 98        |           | 45 - 108 |

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-177343/1-A

Matrix: Solid

Analysis Batch: 177956

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177343

| Analyte | MB     | MB        |     |      |       |   |                |                |     |     |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|-----|-----|
|         | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil | Fac |
| Lead    | ND     |           | 1.5 | 0.60 | mg/Kg |   | 09/30/21 13:37 | 10/01/21 18:12 | 1   |     |

Lab Sample ID: MB 410-177343/1-A

Matrix: Solid

Analysis Batch: 178586

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177343

| Analyte | MB     | MB        |     |      |       |   |                |                |     |     |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|-----|-----|
|         | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil | Fac |
| Lead    | ND     |           | 1.5 | 0.60 | mg/Kg |   | 09/30/21 13:37 | 10/04/21 14:01 | 1   |     |

Lab Sample ID: LCS 410-177343/2-A

Matrix: Solid

Analysis Batch: 177956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177343

| Analyte | Spike | LCS    | LCS       |       |   |      |          |  | %Rec. |  |
|---------|-------|--------|-----------|-------|---|------|----------|--|-------|--|
|         | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |       |  |
| Lead    | 5.00  | 5.62   |           | mg/Kg |   | 112  | 80 - 120 |  |       |  |

Lab Sample ID: LCS 410-177343/2-A

Matrix: Solid

Analysis Batch: 178586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177343

| Analyte | Spike | LCS    | LCS       |       |   |      |          |  | %Rec. |  |
|---------|-------|--------|-----------|-------|---|------|----------|--|-------|--|
|         | Added | Result | Qualifier | Unit  | D | %Rec | Limits   |  |       |  |
| Lead    | 5.00  | 5.36   |           | mg/Kg |   | 107  | 80 - 120 |  |       |  |

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## GC/MS VOA

### Prep Batch: 177674

| Lab Sample ID    | Client Sample ID    | Prep Type | Matrix | Method | Prep Batch |
|------------------|---------------------|-----------|--------|--------|------------|
| 410-57140-1      | 7550 - North (2.5)  | Total/NA  | Solid  | 5035   |            |
| 410-57140-2      | 7550 - South (2.25) | Total/NA  | Solid  | 5035   |            |
| 410-57140-3      | 7550 - East (2)     | Total/NA  | Solid  | 5035   |            |
| 410-57140-4 - RA | 7551 - North (5)    | Total/NA  | Solid  | 5035   |            |
| 410-57140-4      | 7551 - North (5)    | Total/NA  | Solid  | 5035   |            |
| 410-57140-7      | 7551 - South (5)    | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 177675

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-57140-5   | 7551 - East (5)  | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 178181

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-57140-1       | 7550 - North (2.5)     | Total/NA  | Solid  | 8260C  | 177674     |
| 410-57140-2       | 7550 - South (2.25)    | Total/NA  | Solid  | 8260C  | 177674     |
| 410-57140-3       | 7550 - East (2)        | Total/NA  | Solid  | 8260C  | 177674     |
| 410-57140-4       | 7551 - North (5)       | Total/NA  | Solid  | 8260C  | 177674     |
| MB 410-178181/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-178181/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-178181/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 178341

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-57140-5   | 7551 - East (5)  | Total/NA  | Solid  | 8260C  | 177675     |

### Analysis Batch: 178432

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-57140-4 - RA  | 7551 - North (5)       | Total/NA  | Solid  | 8260C  | 177674     |
| MB 410-178432/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-178432/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-178432/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 178934

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 410-57140-6       | Trip Blank             | Total/NA  | Water  | 8260C/UST |            |
| MB 410-178934/6   | Method Blank           | Total/NA  | Water  | 8260C/UST |            |
| LCS 410-178934/4  | Lab Control Sample     | Total/NA  | Water  | 8260C/UST |            |
| LCSD 410-178934/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C/UST |            |

### Analysis Batch: 178968

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-57140-7       | 7551 - South (5)       | Total/NA  | Solid  | 8260C  | 177674     |
| MB 410-178968/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-178968/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-178968/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 177890

| Lab Sample ID | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------|-----------|--------|--------|------------|
| 410-57140-1   | 7550 - North (2.5) | Total/NA  | Solid  | 3546   |            |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### GC/MS Semi VOA (Continued)

#### Prep Batch: 177890 (Continued)

| Lab Sample ID      | Client Sample ID    | Prep Type | Matrix | Method | Prep Batch |
|--------------------|---------------------|-----------|--------|--------|------------|
| 410-57140-2        | 7550 - South (2.25) | Total/NA  | Solid  | 3546   |            |
| 410-57140-3        | 7550 - East (2)     | Total/NA  | Solid  | 3546   |            |
| 410-57140-4        | 7551 - North (5)    | Total/NA  | Solid  | 3546   |            |
| 410-57140-5        | 7551 - East (5)     | Total/NA  | Solid  | 3546   |            |
| 410-57140-7        | 7551 - South (5)    | Total/NA  | Solid  | 3546   |            |
| MB 410-177890/1-A  | Method Blank        | Total/NA  | Solid  | 3546   |            |
| LCS 410-177890/2-A | Lab Control Sample  | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 179769

| Lab Sample ID      | Client Sample ID    | Prep Type | Matrix | Method | Prep Batch |
|--------------------|---------------------|-----------|--------|--------|------------|
| 410-57140-1        | 7550 - North (2.5)  | Total/NA  | Solid  | 8270D  | 177890     |
| 410-57140-2        | 7550 - South (2.25) | Total/NA  | Solid  | 8270D  | 177890     |
| 410-57140-3        | 7550 - East (2)     | Total/NA  | Solid  | 8270D  | 177890     |
| 410-57140-4        | 7551 - North (5)    | Total/NA  | Solid  | 8270D  | 177890     |
| 410-57140-5        | 7551 - East (5)     | Total/NA  | Solid  | 8270D  | 177890     |
| 410-57140-7        | 7551 - South (5)    | Total/NA  | Solid  | 8270D  | 177890     |
| MB 410-177890/1-A  | Method Blank        | Total/NA  | Solid  | 8270D  | 177890     |
| LCS 410-177890/2-A | Lab Control Sample  | Total/NA  | Solid  | 8270D  | 177890     |

### Metals

#### Prep Batch: 177343

| Lab Sample ID      | Client Sample ID    | Prep Type | Matrix | Method | Prep Batch |
|--------------------|---------------------|-----------|--------|--------|------------|
| 410-57140-1        | 7550 - North (2.5)  | Total/NA  | Solid  | 3050B  |            |
| 410-57140-2        | 7550 - South (2.25) | Total/NA  | Solid  | 3050B  |            |
| 410-57140-3        | 7550 - East (2)     | Total/NA  | Solid  | 3050B  |            |
| 410-57140-4        | 7551 - North (5)    | Total/NA  | Solid  | 3050B  |            |
| 410-57140-5        | 7551 - East (5)     | Total/NA  | Solid  | 3050B  |            |
| 410-57140-7        | 7551 - South (5)    | Total/NA  | Solid  | 3050B  |            |
| MB 410-177343/1-A  | Method Blank        | Total/NA  | Solid  | 3050B  |            |
| LCS 410-177343/2-A | Lab Control Sample  | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 177956

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-57140-1        | 7550 - North (2.5) | Total/NA  | Solid  | 6010C  | 177343     |
| 410-57140-3        | 7550 - East (2)    | Total/NA  | Solid  | 6010C  | 177343     |
| 410-57140-4        | 7551 - North (5)   | Total/NA  | Solid  | 6010C  | 177343     |
| 410-57140-5        | 7551 - East (5)    | Total/NA  | Solid  | 6010C  | 177343     |
| 410-57140-7        | 7551 - South (5)   | Total/NA  | Solid  | 6010C  | 177343     |
| MB 410-177343/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 177343     |
| LCS 410-177343/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 177343     |

#### Analysis Batch: 178586

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-177343/1-A  | Method Blank       | Total/NA  | Solid  | 6010C  | 177343     |
| LCS 410-177343/2-A | Lab Control Sample | Total/NA  | Solid  | 6010C  | 177343     |

#### Analysis Batch: 178989

| Lab Sample ID | Client Sample ID    | Prep Type | Matrix | Method | Prep Batch |
|---------------|---------------------|-----------|--------|--------|------------|
| 410-57140-2   | 7550 - South (2.25) | Total/NA  | Solid  | 6010C  | 177343     |

## QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### General Chemistry

#### Analysis Batch: 177285

| Lab Sample ID | Client Sample ID    | Prep Type | Matrix | Method   | Prep Batch |
|---------------|---------------------|-----------|--------|----------|------------|
| 410-57140-1   | 7550 - North (2.5)  | Total/NA  | Solid  | Moisture |            |
| 410-57140-2   | 7550 - South (2.25) | Total/NA  | Solid  | Moisture |            |
| 410-57140-3   | 7550 - East (2)     | Total/NA  | Solid  | Moisture |            |
| 410-57140-4   | 7551 - North (5)    | Total/NA  | Solid  | Moisture |            |
| 410-57140-5   | 7551 - East (5)     | Total/NA  | Solid  | Moisture |            |
| 410-57140-7   | 7551 - South (5)    | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Client Sample ID: 7550 - North (2.5)

Lab Sample ID: 410-57140-1

Date Collected: 09/29/21 11:50

Matrix: Solid

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 177285       | 09/30/21 12:19       | UWC1    | ELLE |

## Client Sample ID: 7550 - North (2.5)

Lab Sample ID: 410-57140-1

Date Collected: 09/29/21 11:50

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 90.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 177674       | 10/01/21 09:17       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 178181       | 10/03/21 17:42       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 177890       | 10/01/21 18:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 179769       | 10/07/21 01:51       | DZ6A    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 177343       | 09/30/21 13:37       | NWV2    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 177956       | 10/01/21 19:16       | XQY5    | ELLE |

## Client Sample ID: 7550 - South (2.25)

Lab Sample ID: 410-57140-2

Date Collected: 09/29/21 12:10

Matrix: Solid

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 177285       | 09/30/21 12:19       | UWC1    | ELLE |

## Client Sample ID: 7550 - South (2.25)

Lab Sample ID: 410-57140-2

Date Collected: 09/29/21 12:10

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 86.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 177674       | 10/01/21 09:17       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 178181       | 10/03/21 20:47       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 177890       | 10/01/21 18:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 179769       | 10/07/21 02:14       | DZ6A    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 177343       | 09/30/21 13:37       | NWV2    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 178989       | 10/05/21 12:19       | WJM9    | ELLE |

## Client Sample ID: 7550 - East (2)

Lab Sample ID: 410-57140-3

Date Collected: 09/29/21 12:30

Matrix: Solid

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 177285       | 09/30/21 12:19       | UWC1    | ELLE |

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Client Sample ID: 7550 - East (2)

Lab Sample ID: 410-57140-3

Date Collected: 09/29/21 12:30

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 87.6

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 177674       | 10/01/21 11:11       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 178181       | 10/03/21 18:06       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 177890       | 10/01/21 18:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 179769       | 10/07/21 02:37       | DZ6A    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 177343       | 09/30/21 13:37       | NWV2    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 177956       | 10/01/21 19:19       | XQY5    | ELLE |

## Client Sample ID: 7551 - North (5)

Lab Sample ID: 410-57140-4

Date Collected: 09/29/21 13:00

Matrix: Solid

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 177285       | 09/30/21 12:19       | UWC1    | ELLE |

## Client Sample ID: 7551 - North (5)

Lab Sample ID: 410-57140-4

Date Collected: 09/29/21 13:00

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 58.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 177674       | 10/01/21 11:11       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 178181       | 10/03/21 18:29       | UCB5    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 177674       | 10/01/21 11:11       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 178432       | 10/04/21 16:58       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 177890       | 10/01/21 18:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 179769       | 10/07/21 03:01       | DZ6A    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 177343       | 09/30/21 13:37       | NWV2    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 177956       | 10/01/21 19:03       | XQY5    | ELLE |

## Client Sample ID: 7551 - East (5)

Lab Sample ID: 410-57140-5

Date Collected: 09/29/21 13:20

Matrix: Solid

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 177285       | 09/30/21 12:19       | UWC1    | ELLE |

## Client Sample ID: 7551 - East (5)

Lab Sample ID: 410-57140-5

Date Collected: 09/29/21 13:20

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 86.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 177675       | 10/01/21 11:16       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 100             | 178341       | 10/04/21 18:39       | USEJ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 177890       | 10/01/21 18:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 179769       | 10/07/21 03:24       | DZ6A    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 177343       | 09/30/21 13:37       | NWV2    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 177956       | 10/01/21 19:09       | XQY5    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

## Client Sample ID: Trip Blank

Lab Sample ID: 410-57140-6

Date Collected: 09/29/21 00:00

Matrix: Water

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C/UST    |     | 1               | 178934       | 10/05/21 15:53       | UKAD    | ELLE |

## Client Sample ID: 7551 - South (5)

Lab Sample ID: 410-57140-7

Date Collected: 09/29/21 13:40

Matrix: Solid

Date Received: 09/30/21 08:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 177285       | 09/30/21 12:19       | UWC1    | ELLE |

## Client Sample ID: 7551 - South (5)

Lab Sample ID: 410-57140-7

Date Collected: 09/29/21 13:40

Matrix: Solid

Date Received: 09/30/21 08:50

Percent Solids: 73.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 177674       | 10/01/21 11:11       | JJT8    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 178968       | 10/05/21 15:49       | UCB5    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 177890       | 10/01/21 18:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 179769       | 10/07/21 03:47       | DZ6A    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 177343       | 09/30/21 13:37       | NWV2    | ELLE |
| Total/NA  | Analysis   | 6010C        |     | 1               | 177956       | 10/01/21 19:22       | XQY5    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority    | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Pennsylvania | NELAP   | 36-00037              | 01-31-22        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C     | Volatile Organic Compounds by GC/MS    | SW846    | ELLE       |
| 8260C/UST | Volatile Organic Compounds (GC/MS)     | SW846    | ELLE       |
| 8270D     | Semivolatile Organic Compounds (GC/MS) | SW846    | ELLE       |
| 6010C     | Metals (ICP)                           | SW846    | ELLE       |
| Moisture  | Percent Moisture                       | EPA      | ELLE       |
| 3050B     | Preparation, Metals                    | SW846    | ELLE       |
| 3546      | Microwave Extraction                   | SW846    | ELLE       |
| 5030C     | Purge and Trap                         | SW846    | ELLE       |
| 5035      | Closed System Purge and Trap           | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: PBF Logistics

Job ID: 410-57140-1

| Lab Sample ID | Client Sample ID    | Matrix | Collected      | Received       |
|---------------|---------------------|--------|----------------|----------------|
| 410-57140-1   | 7550 - North (2.5)  | Solid  | 09/29/21 11:50 | 09/30/21 08:50 |
| 410-57140-2   | 7550 - South (2.25) | Solid  | 09/29/21 12:10 | 09/30/21 08:50 |
| 410-57140-3   | 7550 - East (2)     | Solid  | 09/29/21 12:30 | 09/30/21 08:50 |
| 410-57140-4   | 7551 - North (5)    | Solid  | 09/29/21 13:00 | 09/30/21 08:50 |
| 410-57140-5   | 7551 - East (5)     | Solid  | 09/29/21 13:20 | 09/30/21 08:50 |
| 410-57140-6   | Trip Blank          | Water  | 09/29/21 00:00 | 09/30/21 08:50 |
| 410-57140-7   | 7551 - South (5)    | Solid  | 09/29/21 13:40 | 09/30/21 08:50 |

Ver: 06/08/2021

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-57140-1

Login Number: 57140

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Lugardo, Tamara

| Question  | Answer | Comment |
|---|--------|---------|
| The cooler's custody seal is intact.  | True   |         |
| The cooler or samples do not appear to have been compromised or tampered with.    | True   |         |
| Samples were received on ice.   | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).        | True   |         |
| Cooler Temperature is recorded.   | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen). | N/A    |         |
| WV: Container Temperature is recorded.  | N/A    |         |
| COC is present.   | True   |         |
| COC is filled out in ink and legible.   | True   |         |
| COC is filled out with all pertinent information.                                 | True   |         |
| There are no discrepancies between the containers received and the COC.           | True   |         |
| Sample containers have legible labels.  | True   |         |
| Containers are not broken or leaking.   | True   |         |
| Sample collection date/times are provided.  | True   |         |
| Appropriate sample containers are used.   | True   |         |
| Sample bottles are completely filled.   | True   |         |
| There is sufficient vol. for all requested analyses.                              | True   |         |
| Is the Field Sampler's name present on COC?                                       | True   |         |
| Sample custody seals are intact.  | True   |         |