

| Discharge, Receiving Waters and Water Supply Information | | | |
|---|---|------------------------------|-----------------------------------|
| Outfall No. | <u>001</u> | Design Flow (MGD) | <u>0.0086</u> |
| Latitude | <u>41 11' 23"</u> | Longitude | <u>-80° 27' 45"</u> |
| Quad Name | <u>Sharon East</u> | Quad Code | <u>0902</u> |
| Wastewater Description: <u>Petroleum product-contaminated groundwater</u> | | | |
| Receiving Waters | <u>Unnamed tributary to Hogback Run</u> | Stream Code | <u>35929</u> |
| NHD Com ID | <u>133686273</u> | RMI | <u>0.5</u> |
| Drainage Area | <u>0 (dry); 8.02 (perennial)</u> | Yield (cfs/mi ²) | <u>0 (dry); 0.013 (perennial)</u> |
| Q ₇₋₁₀ Flow (cfs) | <u>0 (dry); 0.104 (perennial)</u> | Q ₇₋₁₀ Basis | <u>USGS Streamstats</u> |
| Elevation (ft) | <u>816</u> | Slope (ft/ft) | <u></u> |
| Watershed No. | <u>20-A</u> | Chapter 93 Class. | <u>WWF</u> |
| Existing Use | <u></u> | Existing Use Qualifier | <u></u> |
| Exceptions to Use | <u></u> | Exceptions to Criteria | <u></u> |
| Assessment Status | <u>Attaining Use(s)</u> | | |
| Cause(s) of Impairment | <u></u> | | |
| Source(s) of Impairment | <u></u> | | |
| TMDL Status | <u></u> | Name | <u></u> |
| Background/Ambient Data | | Data Source | |
| pH (SU) | <u>7.0</u> | Default | <u></u> |
| Temperature (°C) | <u>25</u> | Default (WWF) | <u></u> |
| Hardness (mg/L) | <u>100</u> | Default | <u></u> |
| Other: | <u></u> | | <u></u> |
| Nearest Downstream Public Water Supply Intake | <u>PA American Water Company – New Castle</u> | | |
| PWS Waters | <u>Shenango River</u> | Flow at Intake (cfs) | <u>146</u> |
| PWS RMI | <u>5.1</u> | Distance from Outfall (mi) | <u>18.0</u> |

Changes Since Last Permit Issuance: N/A

Other Comments: The discharge travels approximately 0.54 miles in an intermittent tributary/march to Hogback Run

Development of Effluent Limitations

Outfall No. 001 Design Flow (MGD) 0.0086
 Latitude 41° 11' 23.00" Longitude -80° 27' 45.00"
 Wastewater Description: Groundwater Cleanup Discharge

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

| Parameter | Limit (mg/l) | SBC | Federal Regulation | State Regulation |
|----------------|----------------|-----------------|--------------------|------------------|
| Oil and Grease | 15 | Average Monthly | | 95.2(2)(ii) |
| | 30 | IMAX | | 95.2(2)(ii) |
| pH | 6.0 – 9.0 S.U. | Min – Max | 133.102(c) | 95.2(1) |
| Dissolved Iron | 7.0 | IMAX | | 95.2(4) |

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

| Parameter | Limit (µg/l) | SBC | Model |
|--------------------|--------------|-----------------|---------------------------------------|
| Dissolved Iron | 2.64 (mg/l) | Average Monthly | Toxic Management Spreadsheet Ver. 1.3 |
| Dissolved Iron | 4.12 (mg/l) | Daily Maximum | Toxic Management Spreadsheet Ver. 1.3 |
| Total Mercury | 0.44 | Average Monthly | Toxic Management Spreadsheet Ver. 1.3 |
| Total Mercury | 0.69 | Daily Maximum | Toxic Management Spreadsheet Ver. 1.3 |
| Vinyl Chloride | 1.56 | Average Monthly | Toxic Management Spreadsheet Ver. 1.3 |
| Vinyl Chloride | 2.44 | Daily Maximum | Toxic Management Spreadsheet Ver. 1.3 |
| Benzo(a)Anthracene | 0.078 | Average Monthly | Toxic Management Spreadsheet Ver. 1.3 |
| Benzo(a)Anthracene | 0.12 | Daily Maximum | Toxic Management Spreadsheet Ver. 1.3 |
| Chrysene | 9.39 | Average Monthly | Toxic Management Spreadsheet Ver. 1.3 |
| Chrysene | 14.6 | Daily Maximum | Toxic Management Spreadsheet Ver. 1.3 |
| Phenanthrene | 8.82 | Average Monthly | Toxic Management Spreadsheet Ver. 1.3 |
| Phenanthrene | 13.8 | Daily Maximum | Toxic Management Spreadsheet Ver. 1.3 |

Comments: The Toxics Management Spreadsheet also recommended monitoring for total lead. Monitoring will be placed in the permit at a frequency of "1/year" for total lead to further evaluated the need for future WQBELs.

Best Professional Judgment (BPJ) Limitations

Comments: The following effluent limitations will be placed in the permit that are derived from the applicable NPDES PAG-05 General Permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits."

| Parameter | Limit (mg/l) | SBC |
|------------------------|--------------|-----------------|
| Benzene | 0.001 | Average Monthly |
| Benzene | 0.0025 | IMAX |
| Total BTEX | 0.1 | Average Monthly |
| Total BTEX | 0.25 | IMAX |
| Total Suspended Solids | 30 | Average Monthly |
| Total Suspended Solids | 75 | IMAX |
| pH (S.U.) | 6.0 – 9.0 | Min-Max |
| Oil & Grease | 15 | Average Monthly |
| Oil & Grease | 30 | IMAX |
| Dissolved Iron | 7.0 | IMAX |

Other Considerations

Monitoring for toluene, ethyl benzene, cumene, methyl tert-butyl ether (MTBE), naphthalene, 1,2,4-trimethyl-benzene, and 1,3,5-trimethylbenzene will be placed in the permit due to being known diesel fuel constituents.

Anti-Backsliding

N/A

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---------------------------|-------------------------------------|---------------|-----------------------|-----------------|---------------|------------------|--|----------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | XXX | XXX | XXX | XXX | XXX | 1/month | Estimate |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/month | Grab |
| TSS | XXX | XXX | XXX | 30.0 | XXX | 75.0 | 1/month | Grab |
| Oil and Grease | XXX | XXX | XXX | 15 | XXX | 30 | 1/month | Grab |
| Dissolved Iron | 0.19 | 0.3 | XXX | 2.64 | 4.12 | 6.61 | 2/month | Grab |
| Total Lead | XXX | Report | XXX | XXX | Report | XXX | 1/year | Grab |
| Total Mercury (µg/l) | 0.00003 | 0.00005 | XXX | 0.44 | 0.69 | 1.1 | 2/month | Grab |
| Ethylbenzene | XXX | XXX | XXX | XXX | Report | XXX | 1/month | Grab |
| Vinyl Chloride (µg/l) | 0.0001 | 0.0002 | XXX | 1.56 | 2.44 | 3.91 | 2/month | Grab |
| Benzo(a)Anthracene (µg/l) | 0.000006 | 0.000009 | XXX | 0.078 | 0.12 | 0.2 | 2/month | Grab |
| Chrysene (µg/l) | 0.0007 | 0.001 | XXX | 9.39 | 14.6 | 23.5 | 2/month | Grab |
| Cumene | XXX | XXX | XXX | XXX | Report | XXX | 1/month | Grab |
| Phenanthrene (µg/l) | 0.0006 | 0.001 | XXX | 8.82 | 13.8 | 22.0 | 2/month | Grab |
| 1,2,4-Trimethyl-benzene | XXX | XXX | XXX | XXX | Report | XXX | 1/year | Grab |
| 1,3,5-Trimethyl-benzene | XXX | XXX | XXX | XXX | Report | XXX | 1/year | Grab |

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|-------------|-------------------------------------|------------------|-----------------------|--------------------|------------------|---------------------|--|----------------------------|
| | Mass Units (lbs/day) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Benzene | XXX | XXX | XXX | 0.001 | XXX | 0.0025 | 1/month | Grab |
| Total BTEX | XXX | XXX | XXX | 0.1 | XXX | 0.25 | 1/month | Grab |
| Naphthalene | XXX | XXX | XXX | XXX | Report | XXX | 1/month | Grab |
| Toluene | XXX | XXX | XXX | XXX | Report | XXX | 1/month | Grab |
| MTBE | XXX | XXX | XXX | XXX | Report | XXX | 1/year | Grab |

Compliance Sampling Location: Outfall 001 (prior to mixing with any other waters)

Other Comments:



Discharge Information

Instructions Discharge Stream

Facility: **GD Leasing Facility** NPDES Permit No.: **PA0288993** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Petroleum Product Contaminated GW**

| Discharge Characteristics | | | | | | | | |
|---------------------------|------------------|----------|----------------------------|-----|-----|-----|--------------------------|----------------|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | Q ₇₋₁₀ | Q _n |
| 0.0086 | 100 | 7.1 | | | | | | |

| Discharge Pollutant | Units | Max Discharge Conc | 0 if left blank | | 0.5 if left blank | | 0 if left blank | | | 1 if left blank | |
|---------------------------------|-------|--------------------|-----------------|-------------|-------------------|-----------|-----------------|------------|-----|-----------------|-------------|
| | | | Trib Conc | Stream Conc | Daily CV | Hourly CV | Stream CV | Fate Coeff | FOS | Criteria Mod | Chem Transl |
| Group 1 | | | | | | | | | | | |
| Total Dissolved Solids (PWS) | mg/L | | | | | | | | | | |
| Chloride (PWS) | mg/L | | | | | | | | | | |
| Bromide | mg/L | | | | | | | | | | |
| Sulfate (PWS) | mg/L | | | | | | | | | | |
| Fluoride (PWS) | mg/L | | | | | | | | | | |
| Group 2 | | | | | | | | | | | |
| Total Aluminum | µg/L | | | | | | | | | | |
| Total Antimony | µg/L | | | | | | | | | | |
| Total Arsenic | µg/L | | | | | | | | | | |
| Total Barium | µg/L | | | | | | | | | | |
| Total Beryllium | µg/L | | | | | | | | | | |
| Total Boron | µg/L | | | | | | | | | | |
| Total Cadmium | µg/L | | | | | | | | | | |
| Total Chromium (III) | µg/L | | | | | | | | | | |
| Hexavalent Chromium | µg/L | | | | | | | | | | |
| Total Cobalt | µg/L | | | | | | | | | | |
| Total Copper | µg/L | | | | | | | | | | |
| Free Cyanide | µg/L | | | | | | | | | | |
| Total Cyanide | µg/L | | | | | | | | | | |
| Dissolved Iron | µg/L | 2150 | | | | | | | | | |
| Total Iron | µg/L | | | | | | | | | | |
| Total Lead | µg/L | < 5 | | | | | | | | | |
| Total Manganese | µg/L | | | | | | | | | | |
| Total Mercury | µg/L | < 2 | | | | | | | | | |
| Total Nickel | µg/L | | | | | | | | | | |
| Total Phenols (Phenolics) (PWS) | µg/L | | | | | | | | | | |
| Total Selenium | µg/L | | | | | | | | | | |
| Total Silver | µg/L | | | | | | | | | | |
| Total Thallium | µg/L | | | | | | | | | | |
| Total Zinc | µg/L | | | | | | | | | | |
| Total Molybdenum | µg/L | | | | | | | | | | |
| Acrolein | µg/L | < | | | | | | | | | |
| Acrylamide | µg/L | < | | | | | | | | | |
| Acrylonitrile | µg/L | < | | | | | | | | | |
| Benzene | µg/L | < 1 | | | | | | | | | |
| Bromoform | µg/L | < | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-----------------------------|------|-----|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Group 3 | Carbon Tetrachloride | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Chlorobenzene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Chlorodibromomethane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Chloroethane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2-Chloroethyl Vinyl Ether | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Chloroform | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Dichlorobromomethane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,1-Dichloroethane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,2-Dichloroethane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,1-Dichloroethylene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,2-Dichloropropane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,3-Dichloropropylene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,4-Dioxane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Ethylbenzene | µg/L | < | 1 | | | | | | | | | | | | | | | | | |
| | Methyl Bromide | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Methyl Chloride | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Methylene Chloride | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,1,1,2-Tetrachloroethane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Tetrachloroethylene | µg/L | < | 5 | | | | | | | | | | | | | | | | | |
| | Toluene | µg/L | < | 1 | | | | | | | | | | | | | | | | | |
| | 1,2-trans-Dichloroethylene | µg/L | < | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | µg/L | < | | | | | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | µg/L | < | | | | | | | | | | | | | | | | | | | |
| Trichloroethylene | µg/L | < | 5.2 | | | | | | | | | | | | | | | | | | |
| Vinyl Chloride | µg/L | < | 1.2 | | | | | | | | | | | | | | | | | | |
| Group 4 | 2-Chlorophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2,4-Dichlorophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2,4-Dimethylphenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 4,6-Dinitro-o-Cresol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2,4-Dinitrophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2-Nitrophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 4-Nitrophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | p-Chloro-m-Cresol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Pentachlorophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Phenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2,4,6-Trichlorophenol | µg/L | < | | | | | | | | | | | | | | | | | | |
| Group 5 | Acenaphthene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Acenaphthylene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Anthracene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Benzidine | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Benzo(a)Anthracene | µg/L | < | 5 | | | | | | | | | | | | | | | | | |
| | Benzo(a)Pyrene | µg/L | < | 1 | | | | | | | | | | | | | | | | | |
| | 3,4-Benzofluoranthene | µg/L | < | 1 | | | | | | | | | | | | | | | | | |
| | Benzo(ghi)Perylene | µg/L | < | 1 | | | | | | | | | | | | | | | | | |
| | Benzo(k)Fluoranthene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Bis(2-Chloroethoxy)Methane | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Bis(2-Chloroethyl)Ether | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Bis(2-Chloroisopropyl)Ether | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Bis(2-Ethylhexyl)Phthalate | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 4-Bromophenyl Phenyl Ether | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Butyl Benzyl Phthalate | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 2-Chloronaphthalene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 4-Chlorophenyl Phenyl Ether | µg/L | < | | | | | | | | | | | | | | | | | | |
| | Chrysene | µg/L | < | 7.1 | | | | | | | | | | | | | | | | | |
| | Dibenzo(a,h)Anthracene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,2-Dichlorobenzene | µg/L | < | | | | | | | | | | | | | | | | | | |
| | 1,3-Dichlorobenzene | µg/L | < | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | µg/L | < | | | | | | | | | | | | | | | | | | | |
| 3,3-Dichlorobenzidine | µg/L | < | | | | | | | | | | | | | | | | | | | |
| Diethyl Phthalate | µg/L | < | | | | | | | | | | | | | | | | | | | |
| Dimethyl Phthalate | µg/L | < | | | | | | | | | | | | | | | | | | | |
| Di-n-Butyl Phthalate | µg/L | < | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | µg/L | < | | | | | | | | | | | | | | | | | | | |



Stream / Surface Water Information

GD Leasing Facility, NPDES Permit No. PA0288993, Outfall 001

Instructions Discharge **Stream**

Receiving Surface Water Name: Hogback Run No. Reaches to Model: 1

- Statewide Criteria
- Great Lakes Criteria
- ORSANCO Criteria

| Location | Stream Code* | RMI* | Elevation (ft)* | DA (mi ²)* | Slope (ft/ft) | PWS Withdrawal (MGD) | Apply Fish Criteria* |
|--------------------|--------------|------|-----------------|------------------------|---------------|----------------------|----------------------|
| Point of Discharge | 035929 | 17.5 | 816 | 8.02 | | | Yes |
| End of Reach 1 | 035929 | 0 | 791 | 789 | | 1 | Yes |

Q₇₋₁₀

| Location | RMI | LFY (cfs/mi ²)* | Flow (cfs) | | W/D Ratio | Width (ft) | Depth (ft) | Velocity (fps) | Travel Time (days) | Tributary | | Stream | | Analysis | |
|--------------------|------|-----------------------------|------------|-----------|-----------|------------|------------|----------------|--------------------|-----------|----|-----------|-----|----------|----|
| | | | Stream | Tributary | | | | | | Hardness | pH | Hardness* | pH* | Hardness | pH |
| Point of Discharge | 17.5 | 0.013 | 0.104 | | | | | | | | | 100 | 7 | | |
| End of Reach 1 | 0 | 0.1843 | 146 | | | | | | | | | 100 | 7 | | |

Q_h

| Location | RMI | LFY (cfs/mi ²)* | Flow (cfs) | | W/D Ratio | Width (ft) | Depth (ft) | Velocity (fps) | Travel Time (days) | Tributary | | Stream | | Analysis | |
|--------------------|------|-----------------------------|------------|-----------|-----------|------------|------------|----------------|--------------------|-----------|----|----------|----|----------|----|
| | | | Stream | Tributary | | | | | | Hardness | pH | Hardness | pH | Hardness | pH |
| Point of Discharge | 17.5 | | | | | | | | | | | | | | |
| End of Reach 1 | 0 | | | | | | | | | | | | | | |



Model Results

GD Leasing Facility, NPDES Permit No. PA0288993, Outfall 001

All
 Inputs
 Results
 Limits

Hydrodynamics

Q₇₋₁₀

| RMI | Stream Flow (cfs) | PWS Withdrawal (cfs) | Net Stream Flow (cfs) | Discharge Analysis Flow (cfs) | Slope (ft/ft) | Depth (ft) | Width (ft) | W/D Ratio | Velocity (fps) | Travel Time (days) | Complete Mix Time (min) |
|------|-------------------|----------------------|-----------------------|-------------------------------|---------------|------------|------------|-----------|----------------|--------------------|-------------------------|
| 17.5 | 0.10 | | 0.10 | 0.013 | 0.00027 | 0.418 | 8.94 | 21.404 | 0.031 | 34.039 | 19.393 |
| 0 | 146.00 | 1.547 | 144.453 | | | | | | | | |

Q_h

| RMI | Stream Flow (cfs) | PWS Withdrawal (cfs) | Net Stream Flow (cfs) | Discharge Analysis Flow (cfs) | Slope (ft/ft) | Depth (ft) | Width (ft) | W/D Ratio | Velocity (fps) | Travel Time (days) | Complete Mix Time (min) |
|------|-------------------|----------------------|-----------------------|-------------------------------|---------------|------------|------------|-----------|----------------|--------------------|-------------------------|
| 17.5 | 1.03 | | 1.03 | 0.013 | 0.00027 | 1.091 | 8.94 | 8.191 | 0.107 | 10.023 | 5.692 |
| 0 | 578.94 | 1.547 | 577.39 | | | | | | | | |

Wasteload Allocations

AFC
 CCT (min):
 PMF:
 Analysis Hardness (mg/l):
 Analysis pH:

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|-----------------------|--------------------|-----------|------------------|-----------|------------|---------------|------------|----------------------------------|
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | 64,581 | 81.6 | 643 | Chem Translator of 0.791 applied |
| Total Mercury | 0 | 0 | | 0 | 1,400 | 1.65 | 13.0 | Chem Translator of 0.85 applied |
| Benzene | 0 | 0 | | 0 | 640 | 640 | 5,040 | |
| Ethylbenzene | 0 | 0 | | 0 | 2,900 | 2,900 | 22,837 | |
| Tetrachloroethylene | 0 | 0 | | 0 | 700 | 700 | 5,512 | |
| Toluene | 0 | 0 | | 0 | 1,700 | 1,700 | 13,387 | |
| Trichloroethylene | 0 | 0 | | 0 | 2,300 | 2,300 | 18,112 | |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.5 | 0.5 | 3.94 | |
| Benzo(a)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | | |
|------------------------|---|---|--|---|-------|-------|-------|--|
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Naphthalene | 0 | 0 | | 0 | 140 | 140 | 1,102 | |
| Phenanthrene | 0 | 0 | | 0 | 5 | 5.0 | 39.4 | |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Xylenes | 0 | 0 | | 0 | 1,100 | 1,100 | 8,662 | |

CFC CCT (min): PMF: Analysis Hardness (mg/l): Analysis pH:

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|------------------------|--------------------|-----------|------------------|-----------|------------|---------------|------------|----------------------------------|
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | 2.517 | 3.18 | 28.1 | Chem Translator of 0.791 applied |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 7.99 | Chem Translator of 0.85 applied |
| Benzene | 0 | 0 | | 0 | 130 | 130 | 1,146 | |
| Ethylbenzene | 0 | 0 | | 0 | 580 | 580 | 5,114 | |
| Tetrachloroethylene | 0 | 0 | | 0 | 140 | 140 | 1,234 | |
| Toluene | 0 | 0 | | 0 | 330 | 330 | 2,910 | |
| Trichloroethylene | 0 | 0 | | 0 | 450 | 450 | 3,968 | |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.1 | 0.1 | 0.88 | |
| Benzo(a)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Naphthalene | 0 | 0 | | 0 | 43 | 43.0 | 379 | |
| Phenanthrene | 0 | 0 | | 0 | 1 | 1.0 | 8.82 | |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Xylenes | 0 | 0 | | 0 | 210 | 210 | 1,852 | |

THH CCT (min): THH PMF: Analysis Hardness (mg/l): Analysis pH: PWS PMF:

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|-----------------------|--------------------|-----------|------------------|-----------|------------|---------------|------------|----------|
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 2,645 | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 0.44 | |
| Benzene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Ethylbenzene | 0 | 0 | | 0 | 68 | 68.0 | 600 | |
| Tetrachloroethylene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Toluene | 0 | 0 | | 0 | 57 | 57.0 | 503 | |
| Trichloroethylene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Vinyl Chloride | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzo(a)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | |
|------------------------|---|---|--|---|--------|--------|---------|
| Chrysene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Naphthalene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Phenanthrene | 0 | 0 | | 0 | N/A | N/A | N/A |
| Pyrene | 0 | 0 | | 0 | 20 | 20.0 | 176 |
| Total Xylenes | 0 | 0 | | 0 | 70,000 | 70,000 | 617,196 |

CRL CCT (min): PMF: Analysis Hardness (mg/l): Analysis pH:

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|------------------------|--------------------|-----------|------------------|-----------|------------|---------------|------------|----------|
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Benzene | 0 | 0 | | 0 | 0.58 | 0.58 | 45.4 | |
| Ethylbenzene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Tetrachloroethylene | 0 | 0 | | 0 | 10 | 10.0 | 782 | |
| Toluene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Trichloroethylene | 0 | 0 | | 0 | 0.6 | 0.6 | 46.9 | |
| Vinyl Chloride | 0 | 0 | | 0 | 0.02 | 0.02 | 1.56 | |
| Benzo(a)Anthracene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.078 | |
| Benzo(a)Pyrene | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.008 | |
| 3,4-Benzofluoranthene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.078 | |
| Chrysene | 0 | 0 | | 0 | 0.12 | 0.12 | 9.39 | |
| Indeno(1,2,3-cd)Pyrene | 0 | 0 | | 0 | 0.001 | 0.001 | 0.078 | |
| Naphthalene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Phenanthrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Pyrene | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Xylenes | 0 | 0 | | 0 | N/A | N/A | N/A | |

Recommended WQBELs & Monitoring Requirements

No. Samples/Month:

| Pollutants | Mass Limits | | Concentration Limits | | | | Governing WQBEL | WQBEL Basis | Comments |
|--------------------|---------------|---------------|----------------------|--------|--------|-------|-----------------|-------------|------------------------------------|
| | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | Units | | | |
| Dissolved Iron | 0.19 | 0.3 | 2,645 | 4,127 | 6,613 | µg/L | 2,645 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Total Lead | Report | Report | Report | Report | Report | µg/L | 28.1 | CFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Mercury | 0.00003 | 0.00005 | 0.44 | 0.69 | 1.1 | µg/L | 0.44 | THH | Discharge Conc ≥ 50% WQBEL (RP) |
| Vinyl Chloride | 0.0001 | 0.0002 | 1.56 | 2.44 | 3.91 | µg/L | 1.56 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |
| Benzo(a)Anthracene | 0.000006 | 0.000009 | 0.078 | 0.12 | 0.2 | µg/L | 0.078 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |
| Chrysene | 0.0007 | 0.001 | 9.39 | 14.6 | 23.5 | µg/L | 9.39 | CRL | Discharge Conc ≥ 50% WQBEL (RP) |
| Phenanthrene | 0.0006 | 0.001 | 8.82 | 13.8 | 22.0 | µg/L | 8.82 | CFC | Discharge Conc ≥ 50% WQBEL (RP) |

Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

| Pollutants | Governing WQBEL | Units | Comments |
|------------------------|-----------------|-------|----------------------------|
| Benzene | 45.4 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Ethylbenzene | 600 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Tetrachloroethylene | 782 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Toluene | 503 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Trichloroethylene | 46.9 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Benzo(a)Pyrene | N/A | N/A | Discharge Conc < TQL |
| 3,4-Benzofluoranthene | N/A | N/A | Discharge Conc < TQL |
| Benzo(ghi)Perylene | N/A | N/A | No WQS |
| Indeno(1,2,3-cd)Pyrene | 0.078 | µg/L | Discharge Conc < TQL |
| Naphthalene | 379 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Pyrene | 176 | µg/L | Discharge Conc ≤ 25% WQBEL |
| Total Xylenes | 1,852 | µg/L | Discharge Conc ≤ 25% WQBEL |
| MTBE | N/A | N/A | No WQS |