pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0216593**
Facility Type	**Industrial**	APS ID	**1115116**
Major / Minor	**Minor**	Authorization ID	**1487543**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Texas Eastern Trans LP**	Facility Name	**Holbrook Compressor Station**
Applicant Address	PO Box 1642	Facility Address	258 Bristoria Road
	Houston, TX 77251-1642		Wind Ridge, PA 15380-1259
Applicant Contact	Niti Tottempudi	Facility Contact	Ian Ivy
Applicant Phone	713-627-5967	Facility Phone	713-627-6445
Applicant Email	Niti.tottempudi@enbridge.com	Facility Email	Ian.ivy@enbridge.com
Client ID	82786	Site ID	460926
SIC Code	4922	Municipality	Richhill Township
SIC Description	Trans. & Utilities - Natural Gas Transmission	County	Greene
Date Application Received	June 3, 2024	EPA Waived?	Yes
Date Application Accepted	June 6, 2024	If No, Reason	
Purpose of Application	NPDES Permit Renewal Coverage		

Summary of Review

The Department received a renewal NPDES permit from Texas Eastern Transmission, LP for the Holbrook Compressor Station on June 3, 2024. The site is a natural gas compressor station with a SIC code of 4922, Natural Gas Transmission. The discharge at the Holbrook Compressor Station is the discharge from a groundwater cleanup/treatment system to treat Polychlorinated Biphenyls (PCBs).

Historic use of lubricating oils containing PCBs at the Holbrook Compressor Station has caused PCBs to contaminate the groundwater. Texas Eastern entered into a consent decree to address the potential groundwater impact of the PCBs in the early 1990's. The treatment system was installed in 1990 but the system capacity was doubled in 2015 to handle peaks in the treatment system. The system is designed to remove PCBs from the impacted groundwater from three seeps at the site. Groundwater from the seeps, along with spring groundwater infiltration from the french drain around the pig launcher, is collected in a catch basin sump and pumped to the treatment system. The current system is a dual bank system consisting of pre-filtration, activated carbon filter, and post filtration. The treatment system is permitted under Water Quality Management Permit 3014200. The treatment plant discharges via Outfall 001 to North Fork Dunkard Fork, designated in 25 PA Code Chapter 93 as Trout Stocking.

The site was last inspected on September 30, 2021; no violations were noted. The permittee has 8 open violations; one with the Southeast Regional Water Planning and Conservation Program, 6 with the South Central Regional Clean Water Program, and one with the Southwest Regional Clean Water Program. The violation with the Southwest Regional Clean Water Program is for failure to submit the required application or NOI fee at the Lilly Compressor Station (PAG106226).

Approve	Deny	Signatures	Date
X		Adam Olesnanik, P.E. / Environmental Engineer	June 7, 2024
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	June 28, 2024

Summary of Review

It is recommended that a Draft NPDES Permit be published for public comment in response to this application.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.22
Latitude	39º 53' 24"	Longitude	-80º 27' 10"
Quad Name	Wind Ridge	Quad Code	1902
Wastewater Description:	Groundwater Cleanup Discharge		
Receiving Waters	North Fork Dunkard Fork (TSF)	Stream Code	32594
NHD Com ID	73873434	RMI	2.0
Drainage Area	26.2	Yield (cfs/mi^2)	0.018
Q_{7-10} Flow (cfs)	0.481	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	947	Slope (ft/ft)	0.0001
Watershed No.	20-E	Chapter 93 Class.	TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Dam or Impoundment, Streambank Modifications/Destabilization		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Unknown, Greater than 10 Miles in Ohio		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.22
Latitude 39º 53' 24" **Longitude** -80º 27' 10"
Wastewater Description: Groundwater Cleanup Discharge

Technology-Based Limitations

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1) which is displayed in Table 1 below.

Effluent standards for pH are also imposed on industrial wastes by 25 Pa. Code §§ 95.2(1) which is displayed in Table 1 below.

Table 1. Regulatory Effluent Standards

Parameter	Monthly Avg	Daily Max	IMAX
Flow	Monitor	Monitor	----
pH	6-9 at all times		----

Per- and Polyfluoroalkyl Substances (PFAS)

In February 2024, DEP implemented a new monitoring initiative for PFAS consistent with an EPA memorandum that provides guidance to states for addressing PFAS discharges. PFAS are a family of thousands of synthetic organic chemicals that contain a chain of strong carbon-fluorine bonds. Many PFAS are highly stable, water- and oil-resistant, and exhibit other properties that make them useful in a variety of consumer products and industrial processes. PFAS are resistant to biodegradation, photooxidation, direct photolysis, and hydrolysis and do not readily degrade naturally; thus, many PFAS accumulate over time. According to the United States Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR), the environmental persistence and mobility of some PFAS, combined with decades of widespread use, have resulted in their presence in surface water, groundwater, drinking water, rainwater, soil, sediment, ice caps, outdoor and indoor air, plants, animal tissue, and human blood serum across the globe. ATSDR also reported that exposure to certain PFAS can lead to adverse human health impacts Due to their durability, toxicity, persistence, and pervasiveness, PFAS have emerged as potentially significant pollutants of concern.

In accordance with Section II.I of DEP's "Standard Operating Procedure (SOP) for Clean Water Program – Establishing Effluent Limitations for Individual Industrial Permits" [SOP No. BCW-PMT-032] and under the authority of 25 Pa. Code § 92a.61(b), DEP has determined that monitoring for a subset of common/well-studied PFAS including Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorobutanesulfonic acid (PFBS), and Hexafluoropropylene oxide dimer acid (HFPO-DA) is necessary to help understand the extent of environmental contamination by PFAS in the Commonwealth and the extent to which point source dischargers are contributors. SOP BCW-PMT-032 directs permit writers to consider special monitoring requirements for PFOA, PFOS, PFBS, and HFPO-DA in the following instances:

a. If sampling that is completed as part of the permit renewal application reveals a detection of PFOA, PFOS, HFPO-DA or PFBS (any of these compounds), the application manager will establish a quarterly monitoring requirement for PFOA, PFOS, HFPO-DA and PFBS (all of these compounds) in the permit.

b. If sampling that is completed as part of the permit renewal application demonstrates non-detect values at or below the Target QLs for PFOA, PFOS, HFPO-DA and PFBS (all of these compounds in a minimum of 3 samples), the application manager will establish an annual monitoring requirement for PFOA, PFOS, HFPO-DA and PFBS in the permit.

c. In all cases the application manager will include a condition in the permit that the permittee may cease monitoring for PFOA, PFOS, HFPO-DA and PFBS when the permittee reports non-detect values at or below the Target QL for four consecutive monitoring periods for each PFAS parameter that is analyzed. Use the following language: The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detects at or below Quantitation Limits of 4.0 ng/L for

PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees should enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

According to EPA's guidance, Texas Eastern does not operate in one of the industries EPA expects to be a source for PFAS. Therefore, annual reporting of PFOA, PFOS, PFBS, and HFPO-DA will be required consistent with Section II.I.b of SOP BCW-PMT-032. Even though Texas Eastern did not report results for PFOA, PFOS, PFBS, and HFPO-DA on the permit application, as a facility operating in a suspected non-source industry, Texas Eastern is subject to the annual monitoring requirements described in Section II.I.b of the SOP.

As stated in Section II.I.c of the SOP, if non-detect values at or below DEP's Target QLs are reported for four consecutive monitoring periods (i.e., four consecutive annual results in Texas Eastern's case), then the monitoring may be discontinued.

Water Quality-Based Limitations

Toxics Management Spread Sheet

The Department of Environmental Protection (DEP) has developed the DEP Toxics Management Spreadsheet ("TMS") to facilitate calculations necessary for completing a reasonable potential (RP) analysis and determining water quality-based effluent limitations for discharges of toxic pollutants. The Toxics Management Spreadsheet is a macro-enabled Excel binary file that combines the functions of the PENTOXSD model and the Toxics Screening Analysis spreadsheet to evaluate the reasonable potential for discharges to cause excursions above water quality standards and to determine WQBELs. The Toxics Management Spread Sheet is a single discharge, mass-balance water quality calculation spread sheet that includes consideration for mixing, first-order decay and other factors to determine recommended WQBELs for toxic substances and several non-toxic substances. Required input data including stream code, river mile index, elevation, drainage area, discharge name, NPDES permit number, discharge flow rate and the discharge concentrations for parameters in the permit application or in DMRs, which are entered into the spread sheet to establish site-specific discharge conditions. Other data such as low flow yield, reach dimensions and partial mix factors may also be entered to further characterize the conditions of the discharge and receiving water. Discharge concentrations for the parameters are chosen to represent the "worst case" quality of the discharge (i.e., maximum reported discharge concentrations). The spread sheet then evaluates each parameter by computing a Waste Load Allocation for each applicable criterion, determining a recommended maximum WQBEL and comparing that recommended WQBEL with the input discharge concentration to determine which is more stringent. Based on this evaluation, the Toxics Management Spread sheet recommends average monthly and maximum daily WQBELs.

Reasonable Potential Analysis and WQBEL Development for Outfall 001

Discharges from Outfall 001 are evaluated based on concentrations reported on the application and on DMRs; data from those sources are entered into the Toxics Management Spread Sheet. The maximum reported value of the parameters from the application form or from previous DMRs is used as the input concentration in the Toxics Management Spread Sheet. All toxic pollutants whose maximum concentrations, as reported in the permit application or on DMRs, are greater than the most stringent applicable water quality criterion are considered to be pollutants of concern. [This includes pollutants reported as "Not Detectable" or as "<MDL" where the method detection limit for the analytical method used by the applicant is greater than the most stringent water quality criterion]. The Toxics Management Spread Sheet is run with the discharge and receiving stream characteristics shown in Table 2. For IW discharges, the design flow used in modeling is the average flow during production or operation taken from the permit application. Pollutants for which water quality standards have not been promulgated (e.g., TSS, oil and grease) are excluded from the analysis. All the parameters are evaluated using the model to determine the water quality-based effluent limits applicable to the discharge and the receiving stream. The spreadsheet then compares the reported discharge concentrations to the calculated water quality-based effluent limitations to determine if a reasonable potential exists to exceed the calculated WQBELs. Effluent limitations are established in the draft permit where a pollutant's maximum reported discharge concentration equals or exceeds 50% of the WQBEL. For non-conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 25% - 50% of the WQBEL. For conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 10% - 50% of the WQBEL. The information described above including the maximum reported discharge concentrations, the most stringent water quality criteria, the pollutant-of-concern (reasonable potential) determinations, the calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment B of this Fact Sheet. The Toxics Management Spread Sheet did not recommend any WQBELs for Toxics at Outfall 001.

Table 2: TMS Inputs for Outfall 001

Parameter	Value
River Mile Index	2.0
Discharge Flow (MGD)	0.032
Basin/Stream Characteristics	
Parameter	**Value**
Area in Square Miles	26.2
Q_{7-10} (cfs)	0.481
Low-flow yield (cfs/mi^2)	0.018
Elevation (ft)	947
Slope	0.001

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed in Table 3 below.

Table 3. Current Permit Effluent Limitations

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/quarter	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	2/quarter	Grab
Total PCBs (ng/L)	XXX	XXX	XXX	0.484	0.755	XXX	2/month	Grab

Performance-Based Monitoring Frequency Reductions

The permittee requested that the monitoring frequency of PCBs be reduced to twice a quarter because the discharges from the past five years have all been reported as non-detect.

The Holbrook Compressor Station is an existing facility with no history of non-compliance with effluent limitations over the past two (2) years according to the DMR data. This meets the requirements contained in the statistical procedures in EPA's guidance, "*Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies*" (April 1996) to conduct a parameter-by-parameter analysis on eligibility for reduced monitoring frequency.

At a minimum, the two (2) most current years of Monthly Average effluent data representative of the current operating conditions for the parameter at the particular outfall will be used to calculate the Long-Term Average discharge rate for use in Tables 1 and 2 of the EPA's guidance document. Table 4 below, is a summary of the referenced Tables.

Table 4: Ratio of Long-Term Effluent Average to Monthly Average Limit

Baseline Monitoring	100-76%	75-66%	65-50%	49-25%	<25%
7/wk.	6/wk.	5/wk.	4/wk.	3/wk.	1/wk.
6/wk.	5/wk.	4/wk.	3/wk.	2/wk.	1/wk.
5/wk.	4/wk.	4/wk.	3/wk.	2/wk.	1/wk.
4/wk.	4/wk.	3/wk.	2/wk.	1/wk.	1/wk.
3/wk.	3/wk.	3/wk.	2/wk.	1/wk.	1/wk.

Table 4: Ratio of Long-Term Effluent Average to Monthly Average Limit

Baseline Monitoring	100-76%	75-66%	65-50%	49-25%	<25%
2/wk.	2/wk.	2/wk.	1/wk.	2/month	1/month
1/wk.	1/wk.	1/wk.	1/wk.	2/month	1/2 months
2/month	2/month	2/month	2/month	2/month	1/qtr.
1/month	1/month	1/month	1/month	1/qtr.	1/6 months

The baseline monitoring of 2/month is consistent with the existing monitoring frequency for Holbrook Compressor Station Outfall 001 and will be used for the analysis. For the analysis, the most current two (2) years of DMR data for Outfall 001 to calculate the Long-Term Average to see if the monitoring frequency can be relaxed. Below is a summary of the performance-based analysis for Outfall 001. Based on the ratio of the long-term average to monthly average limit, it is recommended that the monitoring frequency remain the same.

Table 5: Performance-Base Reduction of NPDES Permit Monitoring Frequency Analysis

Parameter	Monthly Average Permit Limit ($^{\mu g}/_{L}$)	Long-Term Average ($^{\mu g}/_{L}$)	Ratio Long-Term Average to Monthly Average Limit (%)	Recommended Monitoring Frequency
PCB, Total	1.75	0.5	28.5	2/month

Proposed Final Effluent Limitations

The proposed Final Permit effluent limitations are displayed below in Table 6.

Table 6. Proposed Final Permit Effluent Limitations

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/quarter	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	2/quarter	Grab
Total PCBs (ng/L)	XXX	XXX	XXX	0.484	0.755	XXX	2/month	Grab
PFOA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab

The WQBELs for Total PCBs is more stringent that the Department's quantitation limits. For the purpose of compliance, a Part C Condition will be included in the permit stating that a statistical value report on the DMR that is less than the QLs (I.E. non-detect) will be considered to be incompliance. Total PCBs is the summation of seven (7) aroclor PCBs. The quantitation limit for the PCB aroclors is 0.25 ug/L. Each of the seven (7) aroclor PCBs are required to be <0.25 ug/L yielding a Total PCBs concentration of <1.75 ug/L, as summarized in Table 7 below.

Table 7: PCB Quantitation Limitation for Compliance

Parameter Name	Quantitation Limit (µg/L)
PCB-1242	<0.25
PCB-1254	<0.25
PCB-1221	<0.25
PCB-1232	<0.25
PCB-1248	<0.25
PCB-1260	<0.25
PCB-1016	<0.25
Total PCBs	**<1.75**

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment **B**)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

Attachments

Attachment A: USGS StreamStats Data

Attachment B: Toxics Management Spreadsheet

Attachment C: Site Plan

Attachment D: Site Flow Diagram

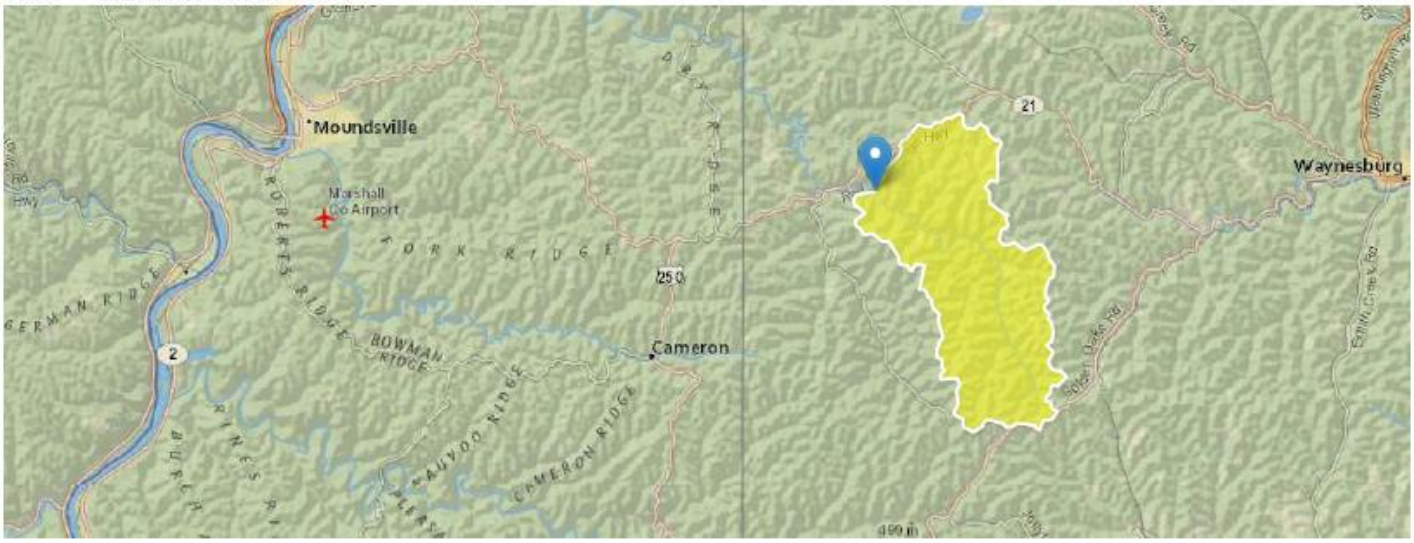
Attachment E: Treatment System Configuration

Attachment A:

USGS StreamStats Data

Outfall 001 StreamStats Report

Region ID: PA
Workspace ID: PA20240607140940452000
Clicked Point (Latitude, Longitude): 39.89247, -80.45144
Time: 2024-06-07 10:10:01 -0400



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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	26.2	square miles
ELEV	Mean Basin Elevation	1295	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	26.2	square miles	2.26	1400
ELEV	Mean Basin Elevation	1295	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	1.24	ft^3/s	43	43
30 Day 2 Year Low Flow	2.06	ft^3/s	38	38
7 Day 10 Year Low Flow	0.481	ft^3/s	66	66
30 Day 10 Year Low Flow	0.812	ft^3/s	54	54
90 Day 10 Year Low Flow	1.44	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.20.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Attachment B:

Toxics Management Spreadsheet

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Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Texas Eastern Holbrook Station** NPDES Permit No.: **PA0216593** Outfall No.: **001**

Evaluation Type: **Custom / Additives** Wastewater Description: **Treated Groundwater**

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_h
0.032	100	7						

				0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
PCBs, Total	µg/L	<	0.5									
Dissolved Iron	µg/L	<	100									

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Texas Eastern Holbrook Station, NPDES Permit No. PA0216593, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **North Fork Dunkard Fork**

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	032594	2	947	26.2	0.0001		Yes
End of Reach 1	032594	1	946	27.2	0.0001		Yes

$Q_{7\text{-}10}$

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	2	0.1	0.481									100	7		
End of Reach 1	1	0.1	0.481												

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	2														
End of Reach 1	1														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Texas Eastern Holbrook Station, NPDES Permit No. PA0216593, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | (●) All ( ) Inputs ( ) Results ( ) Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.420 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
PCBs, Total	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 85.097 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
PCBs, Total	0	0		0	0.014	0.014	0.15	
Dissolved Iron	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 85.097 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
PCBs, Total	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	3,215	

☑ ***CRL*** CCT (min): 26.748 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
PCBs, Total	0	0		0	0.000064	0.00006	0.005	
Dissolved Iron	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits*		*Concentration Limits*				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			

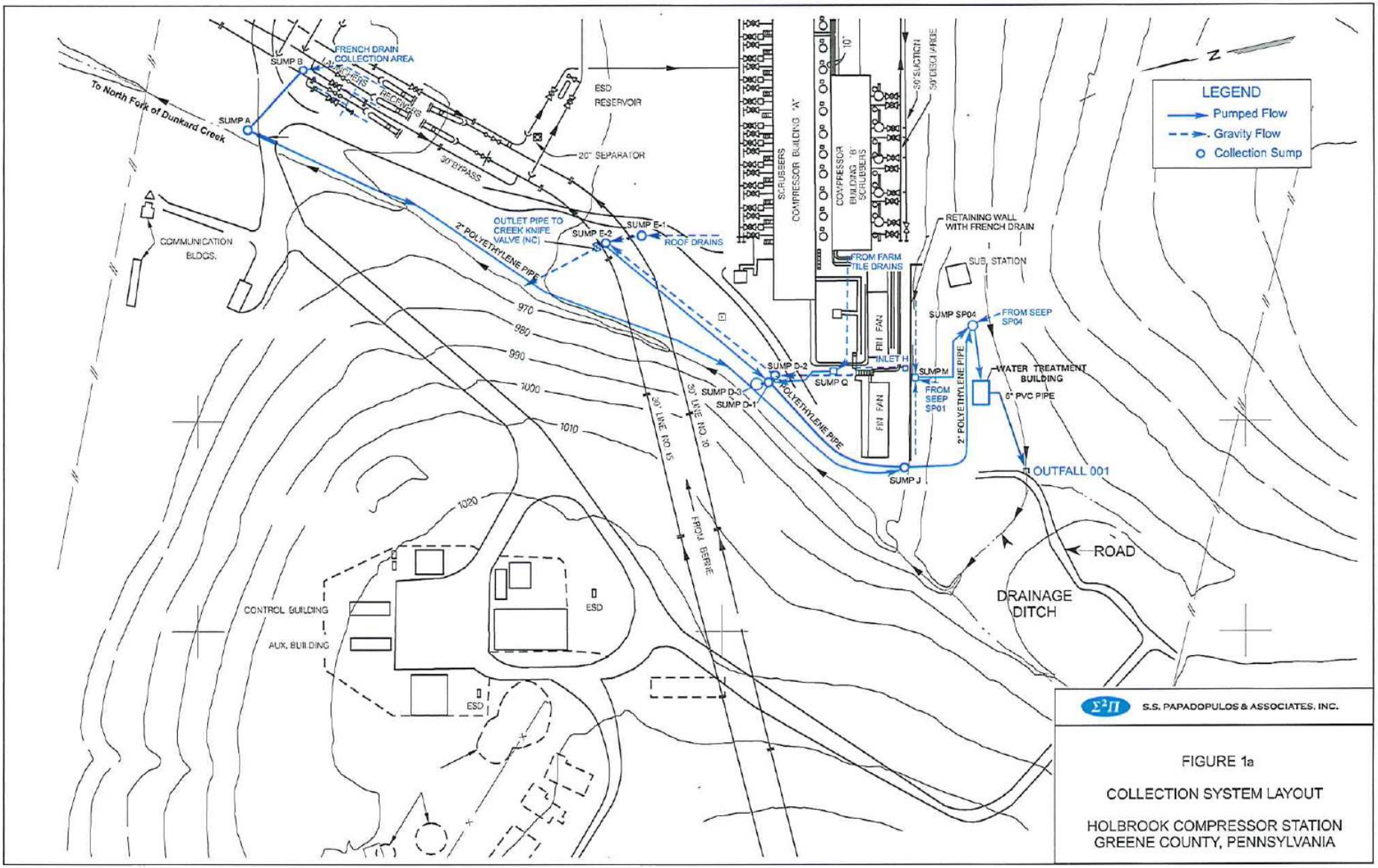
☑ ***Other Pollutants without Limits or Monitoring***

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
PCBs, Total	N/A	N/A	Discharge Conc < TQL
Dissolved Iron	3,215	µg/L	Discharge Conc ≤ 10% WQBEL

Attachment C:

Site Plan

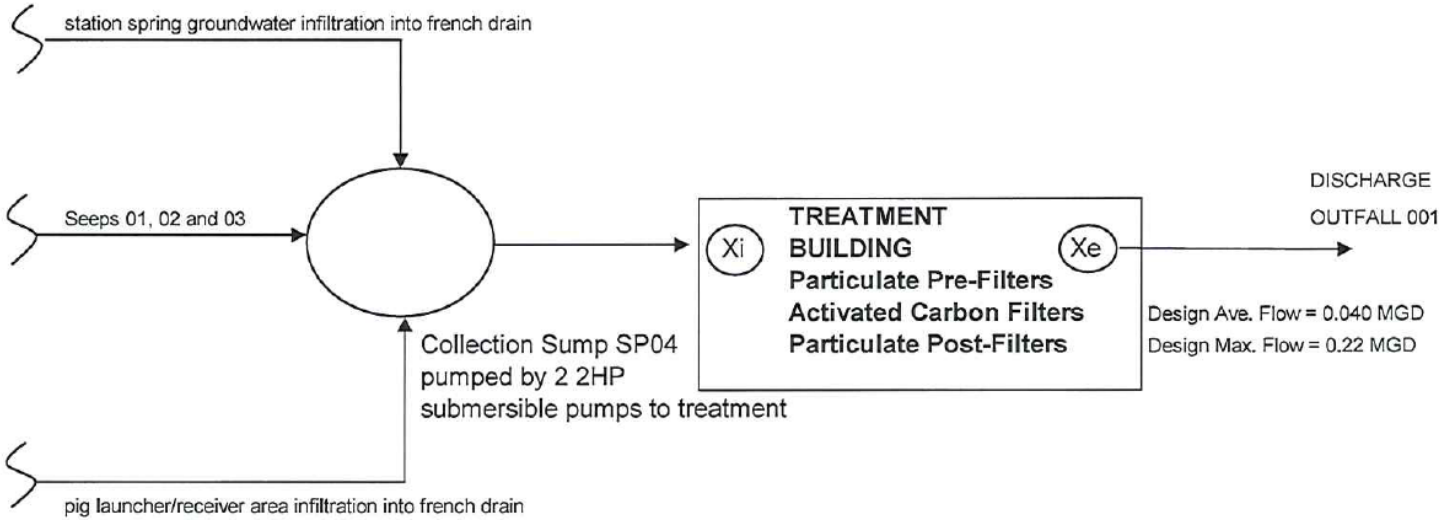

LEGEND
Pumped Flow
Gravity Flow
Collection Sump
To North Fork of Dunkard Creek
SUMP A
SUMP B
FRENCH DRAIN COLLECTION AREA
24" RISERS
RECEIVERS
30" BYPASS
ESD RESERVOIR
20" SEPARATOR
COMMUNICATION BLDGS.
OUTLET PIPE TO CREEK KNIFE VALVE (NC)
2" POLYETHYLENE PIPE
SUMP E-2
SUMP E-1
ROOF DRAINS
SCRUBBERS
COMPRESSOR BUILDING "A"
COMPRESSOR BUILDING "B"
SCRUBBERS
10"
30" SUCTION
30" DISCHARGE
RETAINING WALL WITH FRENCH DRAIN
FROM FARM TILE DRAINS
SUB. STATION
SUMP SP04
FROM SEEP SP04
FIN FAN
INLET H
SUMP M
SUMP Q
SUMP D-2
SUMP D-3
SUMP D-1
POLYETHYLENE PIPE
FROM SEEP SP01
2" POLYETHYLENE PIPE
WATER TREATMENT BUILDING
6" PVC PIPE
SUMP J
OUTFALL 001
970
980
990
1000
1010
1020
30" LINE NO 15
30" LINE NO 30
FROM BERME
ROAD
DRAINAGE DITCH
CONTROL BUILDING
AUX. BUILDING
ESD
ESD
S.S. PAPADOPULOS & ASSOCIATES, INC.
FIGURE 1a
COLLECTION SYSTEM LAYOUT
HOLBROOK COMPRESSOR STATION
GREENE COUNTY, PENNSYLVANIA

Attachment D:

Site Flow Diagram

Figure 2 - Process Flow Line Drawing

Texas Eastern Transmission, LP
Holbrook Compressor Station

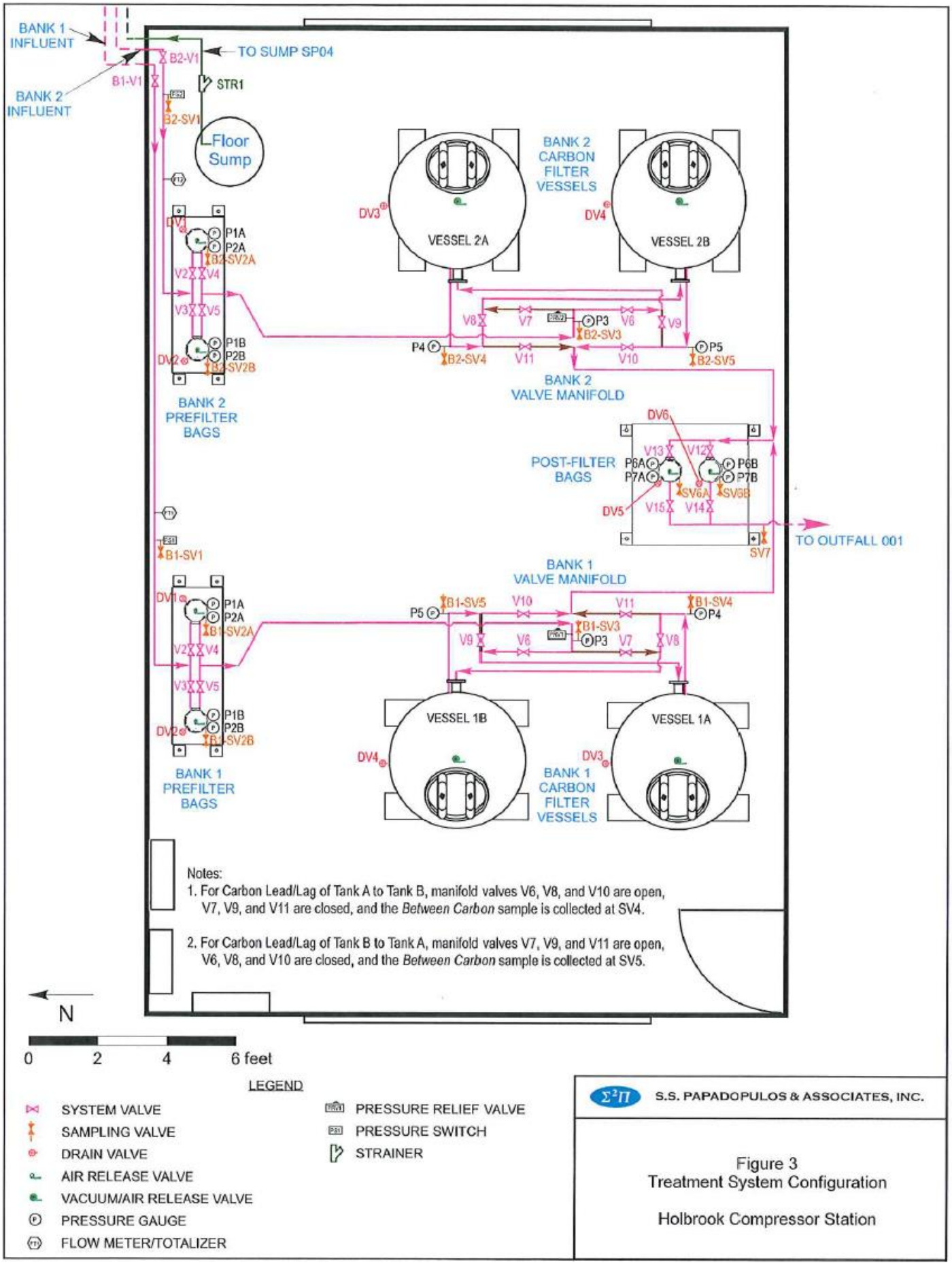


(Xe) Point where effluent samples were taken to complete Modules 2

(Xi) Influent samples collected inside Treatment Plant prior to treatment

Attachment E:

Treatment System Configuration


BANK 1 INFLUENT
BANK 2 INFLUENT
B2-V1
B1-V1
TO SUMP SP04
STR1
B2-SV1
Floor Sump
BANK 2 CARBON FILTER VESSELS
DV3
DV4
VESSEL 2A
VESSEL 2B
DV1
P1A
P2A
B2-SV2A
V2
V4
V3
V5
P1B
P2B
DV2
B2-SV2B
BANK 2 PREFILTER BAGS
V8
V7
P3
V6
V9
B2-SV3
P4
B2-SV4
V11
V10
P5
B2-SV5
BANK 2 VALVE MANIFOLD
DV6
POST-FILTER BAGS
V13
V12
P6A
P7A
P6B
P7B
SV6A
SV6B
DV5
V15
V14
SV7
TO OUTFALL 001
B1-SV1
BANK 1 VALVE MANIFOLD
DV1
P1A
P2A
B1-SV2A
V2
V4
V3
V5
P1B
P2B
DV2
B1-SV2B
BANK 1 PREFILTER BAGS
P5
B1-SV5
V10
V11
B1-SV4
P4
B1-SV3
P3
V9
V6
V7
V8
VESSEL 1B
VESSEL 1A
DV4
DV3
BANK 1 CARBON FILTER VESSELS
Notes:
1. For Carbon Lead/Lag of Tank A to Tank B, manifold valves V6, V8, and V10 are open, V7, V9, and V11 are closed, and the Between Carbon sample is collected at SV4.
2. For Carbon Lead/Lag of Tank B to Tank A, manifold valves V7, V9, and V11 are open, V6, V8, and V10 are closed, and the Between Carbon sample is collected at SV5.
N
0
2
4
6 feet
LEGEND
SYSTEM VALVE
SAMPLING VALVE
DRAIN VALVE
AIR RELEASE VALVE
VACUUM/AIR RELEASE VALVE
PRESSURE GAUGE
FLOW METER/TOTALIZER
PRESSURE RELIEF VALVE
PRESSURE SWITCH
STRAINER
S.S. PAPADOPULOS & ASSOCIATES, INC.
Figure 3
Treatment System Configuration
Holbrook Compressor Station