pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0087769**
Facility Type	**Industrial**	APS ID	**16686**
Major / Minor	**Minor**	Authorization ID	**1223138**

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

Applicant and Facility Information

Applicant Name	**Texas Eastern Trans LP**	Facility Name	**Texas Eastern Transmission LP Shermans Dale Compressor Station**
Applicant Address	2601 Market Place Suite 400	Facility Address	425 Texas Eastern Road
	Harrisburg, PA 17110-9363		Shermans Dale, PA 17090
Applicant Contact	Kyle Alexander	Facility Contact	Kyle Alexander
Applicant Phone	(717) 540-8303	Facility Phone	(717) 540-8303
Client ID	82786	Site ID	270358
SIC Code	4922	Municipality	Carroll Township
SIC Description	Trans. & Utilities - Natural Gas Transmission	County	Perry
Date Application Received	February 28, 2018	EPA Waived?	Yes
Date Application Accepted	April 12, 2018	If No, Reason	
Purpose of Application	NPDES Renewal		

Summary of Review

This is a renewal application of NPDES Permit No PA0087769 for the Texas Eastern Transmission, LP (Texas Eastern) Shermans Dale Compressor Station for the discharge of treated groundwater from a groundwater treatment system (GWTS).

Historic use of PCB lubricating oils in operations of Shermans Dale Compressor Station has caused PCBs to migrate to the groundwater.

The GWTS was installed in 1990 to treat PCB contaminated groundwater emanating from a spring on the former Wielga property. The spring property adjoins the Shermans Dale compressor station on the south. The treatment system was installed as part of the Consent Order and Adjudication between Texas Eastern and the State of Pennsylvania as an “interim measure” to address the potential groundwater impact of PCBs. In September 1998 a NPDES was received from DEP and the treatment system became a “permanent measure”. It is expected to run for the foreseeable future.

Figure 1 shows the site layout including the location of the spring house, wastewater treatment building, Outfall 001, and retention pond. The influent to the treatment building is Wielga Spring, which is located inside the spring house. Wielga Spring coordinates are 40º 20’ 42” N / 77º 09’ 34” W.

Timeline of application

Currently, the facility is covered under NPDES Permit No PA0087769, which expired on August 31, 2018.
The renewal application was received on February 28, 2018.

The application was accepted as complete on 4/18/2018.

Approve	Deny	Signatures	Date
x		Brenda J Fruchtl Brenda J. Fruchtl, P.G. / Licensed Professional Geologist	January 14, 2020
x		Scott Arwood Scott M. Arwood, P.E. / Environmental Engineer Manager	1/15/2021

Summary of Review

August 25 2020, as part of the Technical Review, PADEP sent an email requesting information on any changes that may have occurred since the renewal application was received February 28, 2018; a table summarizing the quarterly influent and effluent data for the GWTS since February 2018; additional information about Outfall 001; and additional information about the source of the contaminated groundwater.

October 5, 2020, PADEP received a response from the permittee that there have been no changes to the treatment system, treatment process, discharge rate, or contact information since the permit renewal application was submitted in February 2018. They also submitted a table as requested summarizing the influent and effluent results for PCB for the time period of March 2015 through March 2020. They provided corrected coordinates for Outfall 001. They provided information on the source of the contaminated groundwater along with the coordinates for Wielga Spring.

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)	.0576
Latitude	40º 20' 43"	Longitude	-77º 9' 32"
Wastewater Description:	Groundwater Cleanup Discharge		
Receiving Waters	Unnamed Tributary to Sherman Creek (WWF, MF)	Stream Code	11040
NHD Com ID	56401509	RMI	0.30
Drainage Area	1.1 mi^2	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.005	Q_{7-10} Basis	
Elevation (ft)	425	Slope (ft/ft)	
Watershed No.	7-A	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Suez Water, Susquehanna Twp, Dauphin Co.		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	59	Distance from Outfall (mi)	~22

Changes Since Last Permit Issuance: Coordinates for Outfall 001 revised per October 5, 2020 email. Change in RMI based on revised coordinates for Outfall 001 received from the permittee via email on October 5, 2020.

Other Comments:

- Outfall 001 is the location where the effluent leaves the wastewater treatment building prior to entering the pond.
- Effluent samples are collected where the effluent leaves the treatment building, at Outfall 001, prior to entering the pond.
- Distance from the discharge at Outfall 001 to Unnamed Tributary to Sherman Creek (receiving water) is approximately 425 feet. Basin Delineation and Receiving water information in above table is based on the location where the dry stream enters Unnamed Tributary to Sherman Creek at RMI 0.30.

Treatment Facility Summary
Treatment Facility Name: Texas Eastern Transmission- Shermans Dale Compressor Station Groundwater Treatment System (GWTS) WQM Permit not issued for the treatment facility. The design flow for the GWTS is 0.0576 MGD. Average flow during production / operation is 0.0054 MGD. The Maximum flow during production / operation is 0.0452 MGD The system was upgraded in 2002 to 40 GPM (0.0576 MGD). This higher capacity treatment system was installed in a permanent building located across the creek from the spring house. The wastewater is collected in a below ground collection sump and pumped to the treatment building for treatment. The major components of the treatment unit are: • A pump • A particulate pre-filter • Four parallel banks of canisters, each with 2 activated carbon canisters in series, • A particulate post-filter (added in December 2015), and • A totalizing meter. See Figure 2. Treatment System Layout (from the renewal application received February 28, 2018) The pump located in the treatment building, transfers water from the spring basis to the treatment system. Suspended sediment particles in the water to be treated are removed by a prefilter (one-micron filter cartridges), and organic compounds, in particular PCBs, are removed by the activated carbon filters. The water is split into 4 streams or banks after the prefilter. Each bank has 2 activated carbon filters. The activated carbon filters remove PCBs from the water. In 2015, a post-filter which has a single one-micron filter bag was installed after the activated carbon filters to remove any activated carbon fines. The effluent line has a flow totalizing meter. After treatment, the effluent flows through a 4" PVC pipe to the pond that Mr. Wielga developed on the property, where treated water is discharged. When the pond is high, water flows into an overflow intake pipe in the center of the pond to the adjacent Tributary 11040 to Shermans Creek. See Figure 3. Water Balance Diagram for the GWTS (from the renewal application received February 28, 2018) The method for handling and disposal of solid or liquid residue resulting from the following treatment units is to landfill: pre-filter, activated carbon filtration, and post-filter.

Changes Since Last Permit Issuance: The treatment facility underwent upgrades in December 2015. The upgrades included the following:

- Sealing turbine sump, block walls, and springhouse floor with epoxy/pain sealant;
- Installing PVC tees and ball valves on inlet header to the carbon drums to allow for manual venting of entrapped air;
- Replacing hoses;
- Replacing aluminum camlock fittings with brass fittings; and
- Installing a post-filter with a 1-micron filter bag for sediments removal.

Compliance History	
Summary of DMRs:	eDMR results from January 2014 to March 2020 **Flow.** Daily max ranged from 0.0028 MGD to 0.2521 MGD **PCBs.** Reported as < 0.5 ug/L (0.0005 mg/L) for Daily Max No permit limits were exceeded in the past 5 years.
Summary of Inspections:	DEP conducted a compliance evaluation on 07/29/2015. No violations were noted.
Summary of Violations:	• There have been no Clean Water Program violations reported for this facility (Permit No PA0087769) since the last renewal. • There are not any open Clean Water Program violations for the facility.

Influent and Effluent Data

The following parameters are sampled quarterly in the influent and effluent to the remedial system: PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260, and Total PCB (Polychlorinated biphenyl).

Total PCB and PCB-1248 are the only parameters detected in the quarterly influent samples between March 2015 and March 2020.

Summary of the quarterly sampling results for all forms of PCB for both the influent and effluent:

- See Attachment A: Shermans Dale Compressor Station PCBs Data 2015 - 2020 (submitted via email on October 5, 2020)

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	.0576
Latitude	40º 20' 43.00"	**Longitude**	-77º 9' 32.00"

Wastewater Description: Groundwater Cleanup Discharge

Chemical Additives. None reported

Development of Effluent Limitations
The treated groundwater is discharged at Outfall 001 to a pond and is approximately 425 feet from the UNT of the Sherman Creek.

Toxics Management Spreadsheet Version 1.1 was used to develop the limits (see Attachment B).

Discharge Information Inputs: Per Module 2 of the application, Total PCBs is the only parameter of concern present in the influent. Since the purpose of the groundwater treatment system is to treat for PCBs, limits for Total PCB will remain in the permit to evaluate the effectiveness of the treatment system. Therefore, the maximum discharge concentrations entered in the Discharge Information page of the Toxics Management Spreadsheet were taken from the maximum influent concentrations provided in the Shermans Dale Compressor Station PCBs Data 2015 - 2020 tables (see Attachment A).

Stream / Surface Water Information Inputs: The proposed limits were based on a design flow of 0.0576 MGD. The streamflow data used in the analysis was obtained from the USGS PA StreamStats program which determine Q_{7-10} at 20.6 cfs and a drainage area of 220.9 mi^2 for Shermans Creek just downstream from where the UNT to Shermans Creek flows into the main stem of Shermans Creek. The resultant LFY was 0.09 cfs/mi^2, which was used in the PENTOXSD model. To further verify the calculated LFY, the LFY was also calculated using the Q_{7-10} (20.7 cfs) and drainage area (221.9 mi^2) from USGS PA StreamStats even further downstream on Shermans Creek, which also produced an LFY of 0.09 cfs/mi^2.

Model Results: The recommended limits for the Proposed Draft NPDES Permit are taken from the Recommended WQBELs & Monitoring Requirements. The slight change in the proposed limits from the 2013 NPDES Permit limits are a result of rounding.

Comparison of Effluent Limitations and Parameters from 2013 NPDES Permit and Draft NPDES Permit:

	2013 NPDES Permit Limits Renewal			**Recommended NPDES Permit Limits Renewal**		
Parameter	*Ave Monthly*	*Max Daily*	*Inst. Maximum*	**Ave Quarterly***	**Max Daily**	**Inst. Maximum**
Flow (MGD)	*xxx*	*xxx*	*xxx*	**xxx**	**xxx**	**xxx**
Total PCBs (ug/L)	*0.000765*	*0.001*	*0.00191*	**0.0008**	**0.001**	**0.002**

**changed limit from Average Monthly to Average Quarterly since the treatment system is only required to be sampled on a quarterly basis.*

PART C SPECIAL CONDITIONS

I. OTHER REQUIREMENTS

A. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

B. Collected screenings, slurries, sludges, and other solids shall be handled, recycled and/or disposed of in compliance with the Solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), 25 Pa. Code Chapters 287, 288, 289, 291, 295, 297, and 299 (relating to requirements for landfilling, impoundments, land application, composting, processing, and storage of residual waste), Chapters 261a, 262a, 263a, and 270a (related to identification of hazardous waste, requirements for generators and transporters, and hazardous waste, requirements for generators and transporters, and hazardous waste permit programs), federal regulation 40 CFR

Part 257, The Clean Streams Law, and the Federal Clean Water Act and its amendments. Screenings collected at intake structures shall be collected and managed and not be returned to the receiving waters.

The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport and disposal of solid waste materials generated as a result of wastewater treatment.

C. If the applicable standard or effluent guideline limitation relating to the application for Best Available Technology (BAT) Economically Achievable or to Best Conventional Technology (BCT) is developed by DEP or EPA for this type of industry, and if such standard or limitation is more stringent than the corresponding limitations of this permit (or if it controls pollutants not covered by this permit), DEP may modify or revoke and reissue the permit to conform with that standard or limitation.

II. WQBELs BELOW QUANTITATION LIMITS

A. The parameter(s) listed below are subject to water quality-based effluent limits (WQBELs) in Part A of this permit that are necessary to comply with state water quality standards, but may be less than quantitation limits (QLs), as defined in 25 Pa. Code § 252.1, that are generally achievable by conventional analytical technology. The permittee shall analyze the parameter(s) using methods that will achieve the QL(s) as listed below. For the purpose of compliance, a statistical value reported on the DMR that is less than the QL(s) (i.e., “non-detect”) will be considered to be in compliance.

Parameter Name	Quantitation Limit
Total PCBs	0.5 ug/L

B. The permittee shall, where determined to be feasible by the permittee, achieve a QL less than the QL identified above to improve the level of confidence that state water quality standards are being met in the receiving waters.

C. The permittee shall manage non-detect values and report statistical results to DEP in accordance with published DMR guidance (3800-BK-DEP3047 and 3800-FS-DEP4262). Where a mixed data set exists containing non-detect results and “detected” values (i.e., results greater than or equal to the QL), the QL shall be used for non-detect results to compute average statistical results.

III. GROUNDWATER CLEANUP

A. The discharge and cleanup operation from Outfall 001 at Wielga is part of the overall groundwater remediation project covered by the 1991 Consent Order and Adjudication (COA) and shall continue in accordance with the permittee’s obligation under the existing COA.

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	Average Weekly	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report Avg Qrtly	Report Daily Max	XXX	XXX	XXX	XXX	1/quarter	Measured
Total PCBs (ug/L)	XXX	XXX	XXX	0.0008	0.001	0.002	1/quarter	Grab

Compliance Sampling Location: Outfall 001

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment **B**)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

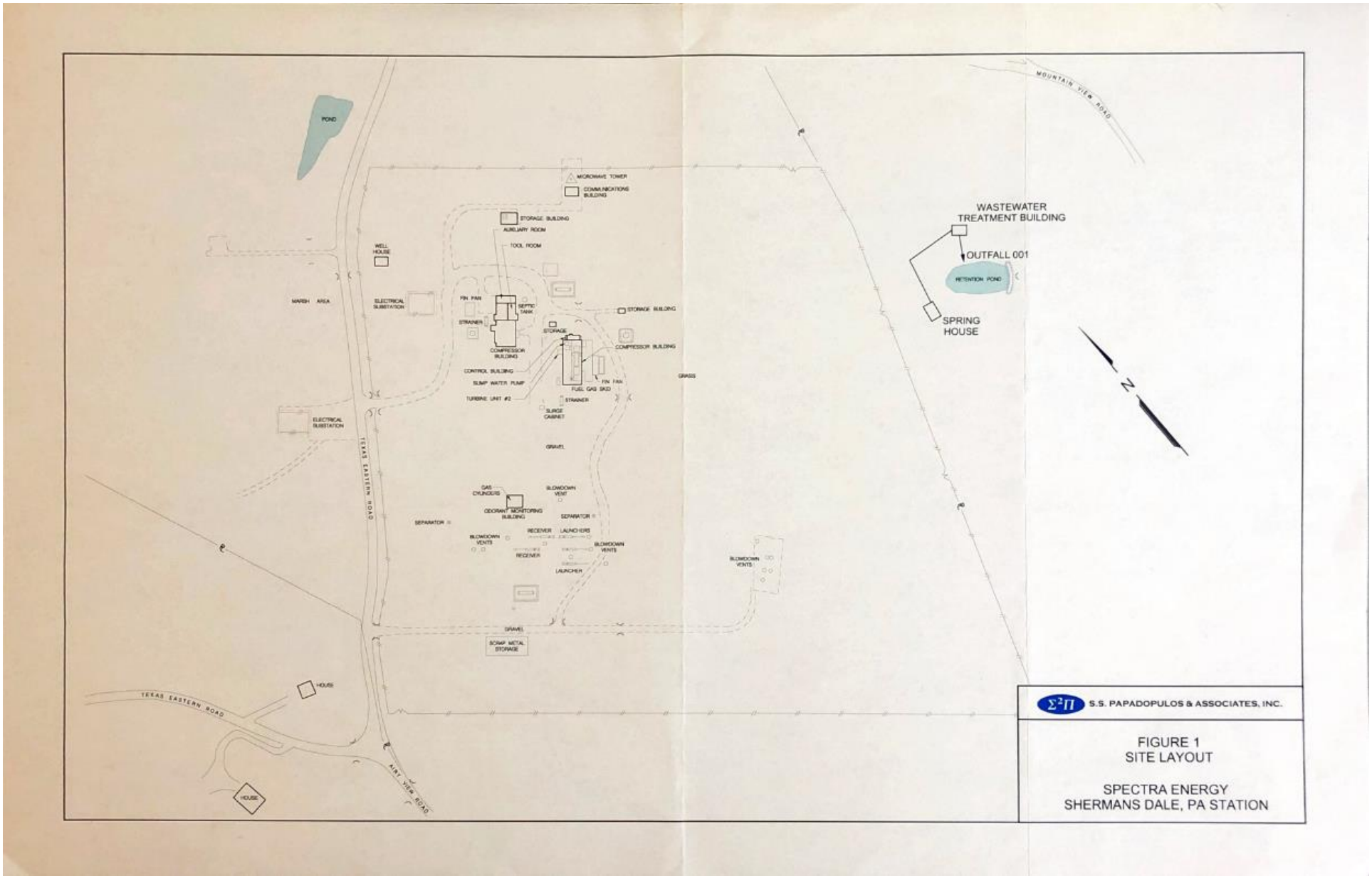

Figure 1. Site Layout (from the renewal application received February 28, 2018)

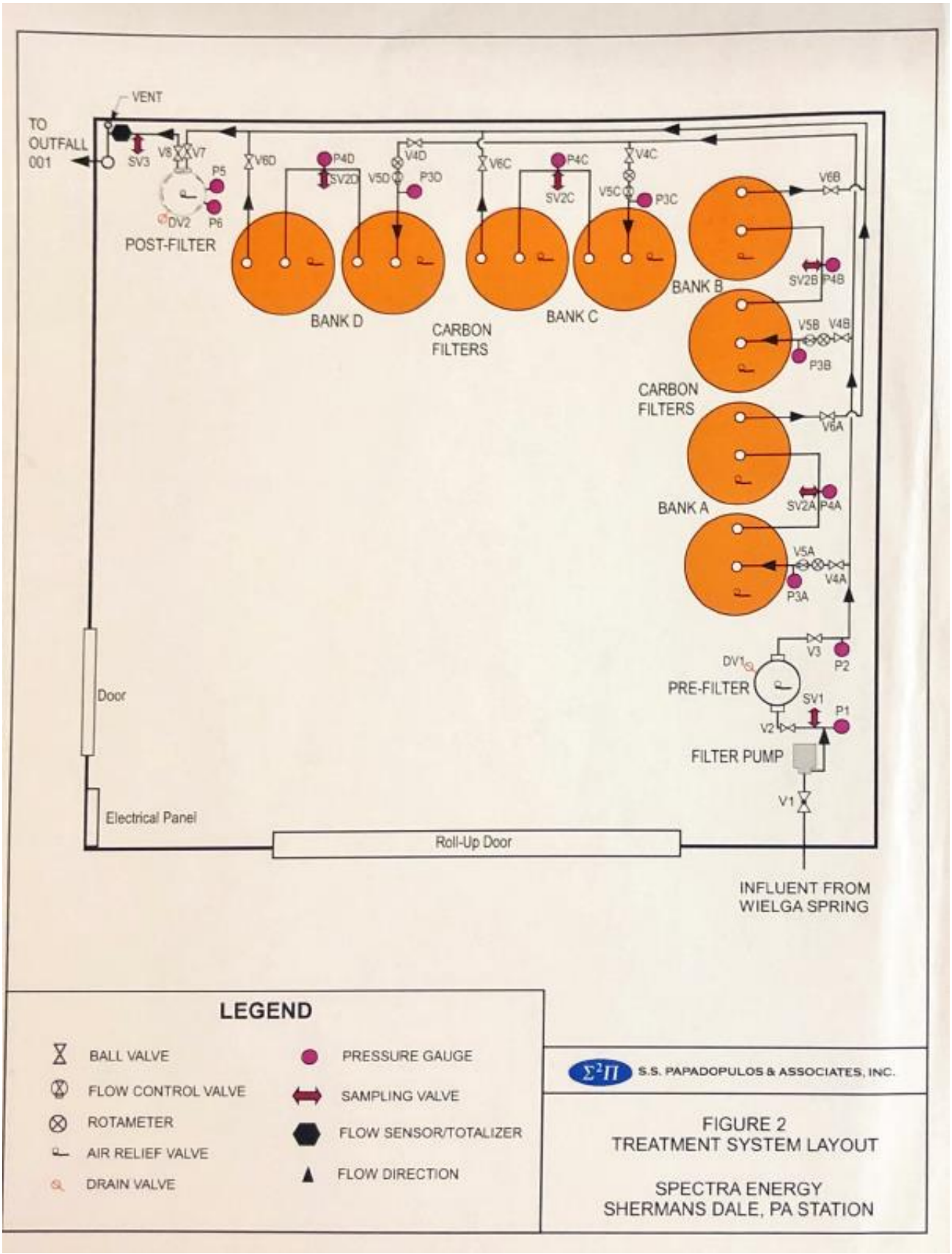

Figure 2. Treatment System Layout (from the renewal application received February 28, 2018)

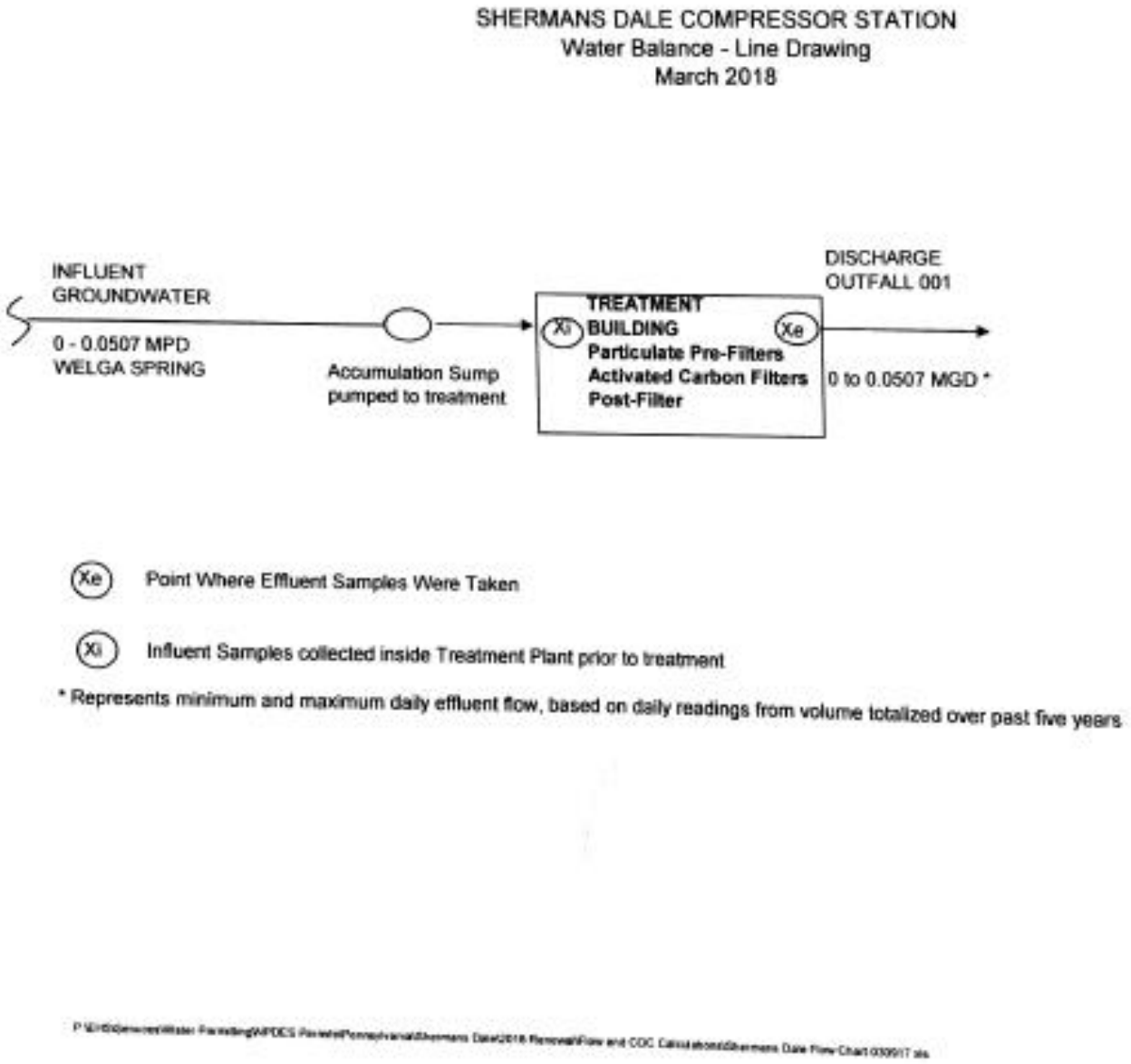

Figure 3. Water Balance Diagram for the GWTS (from the renewal application received February 28, 2018)

Attachment A

Shermans Dale Compressor Station PCBs Data 2015 - 2020

(submitted via email on October 5, 2020)

SHERMANS DALE COMPRESSOR STATION PCBs DATA* 2015-2020

Date	Influent Result	Effluent Result	Parameter
March-15	<0.5	<0.5	PCB-1016
July-15	<0.5	<0.5	PCB-1016
December-15	<0.5	<0.5	PCB-1016
March-16	<0.5	<0.5	PCB-1016
June-16	<0.5	<0.5	PCB-1016
September-16	<0.5	<0.5	PCB-1016
December-16	<0.5	<0.5	PCB-1016
March-17	<0.5	<0.5	PCB-1016
August-17	<0.5	<0.5	PCB-1016
September-17	<0.5	<0.5	PCB-1016
December-17	<0.5	<0.5	PCB-1016
March-18	<0.5	<0.5	PCB-1016
June-18	<0.5	<0.5	PCB-1016
02-Oct-18	<0.5	<0.5	PCB-1016
16-Oct-18	<0.5	<0.5	PCB-1016
February-19	<0.5	<0.5	PCB-1016
June-19	<0.5	<0.5	PCB-1016
September-19	<0.5	<0.5	PCB-1016
November-19	<0.5	<0.5	PCB-1016
March-20	<0.5	<0.5	PCB-1016
March-15	<0.5	<0.5	PCB-1221
July-15	<0.5	<0.5	PCB-1221
December-15	<0.5	<0.5	PCB-1221
March-16	<0.5	<0.5	PCB-1221
June-16	<0.5	<0.5	PCB-1221
September-16	<0.5	<0.5	PCB-1221
December-16	<0.5	<0.5	PCB-1221
March-17	<0.5	<0.5	PCB-1221
August-17	<0.5	<0.5	PCB-1221
September-17	<0.5	<0.5	PCB-1221
December-17	<0.5	<0.5	PCB-1221
March-18	<0.5	<0.5	PCB-1221
June-18	<0.5	<0.5	PCB-1221
02-Oct-18	<0.5	<0.5	PCB-1221
16-Oct-18	<0.5	<0.5	PCB-1221
February-19	<0.5	<0.5	PCB-1221
June-19	<0.5	<0.5	PCB-1221
September-19	<0.5	<0.5	PCB-1221
November-19	<0.5	<0.5	PCB-1221
March-20	<0.5	<0.5	PCB-1221
March-15	<0.5	<0.5	PCB-1232

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SHERMANS DALE COMPRESSOR STATION PCBs DATA* 2015-2020

Date	Influent Result	Effluent Result	Parameter
July-15	<0.5	<0.5	PCB-1232
December-15	<0.5	<0.5	PCB-1232
March-16	<0.5	<0.5	PCB-1232
June-16	<0.5	<0.5	PCB-1232
September-16	<0.5	<0.5	PCB-1232
December-16	<0.5	<0.5	PCB-1232
March-17	<0.5	<0.5	PCB-1232
August-17	<0.5	<0.5	PCB-1232
September-17	<0.5	<0.5	PCB-1232
December-17	<0.5	<0.5	PCB-1232
March-18	<0.5	<0.5	PCB-1232
June-18	<0.5	<0.5	PCB-1232
02-Oct-18	<0.5	<0.5	PCB-1232
16-Oct-18	<0.5	<0.5	PCB-1232
February-19	<0.5	<0.5	PCB-1232
June-19	<0.5	<0.5	PCB-1232
September-19	<0.5	<0.5	PCB-1232
November-19	<0.5	<0.5	PCB-1232
March-20	<0.5	<0.5	PCB-1232
March-15	<0.5	<0.5	PCB-1242
July-15	<0.5	<0.5	PCB-1242
December-15	<0.5	<0.5	PCB-1242
March-16	<0.5	<0.5	PCB-1242
June-16	<0.5	<0.5	PCB-1242
September-16	<0.5	<0.5	PCB-1242
December-16	<0.5	<0.5	PCB-1242
March-17	<0.5	<0.5	PCB-1242
August-17	<0.5	<0.5	PCB-1242
September-17	<0.5	<0.5	PCB-1242
December-17	<0.5	<0.5	PCB-1242
March-18	<0.5	<0.5	PCB-1242
June-18	<0.5	<0.5	PCB-1242
02-Oct-18	<0.5	<0.5	PCB-1242
16-Oct-18	<0.5	<0.5	PCB-1242
February-19	<0.5	<0.5	PCB-1242
June-19	<0.5	<0.5	PCB-1242
September-19	<0.5	<0.5	PCB-1242
November-19	<0.5	<0.5	PCB-1242
March-20	3.32	<0.5	PCB-1242
March-15	2.4	<0.5	PCB-1248
July-15	2.6	<0.5	PCB-1248
December-15	3.3	<0.5	PCB-1248

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SHERMANS DALE COMPRESSOR STATION PCBs DATA* 2015-2020

Date	Influent Result	Effluent Result	Parameter
March-16	5.9	<0.5	PCB-1248
June-16	2	<0.5	PCB-1248
September-16	2.7	<0.5	PCB-1248
December-16	1.68	<0.5	PCB-1248
March-17	1.07	<0.5	PCB-1248
August-17	<0.5	<0.5	PCB-1248
September-17	<0.5	<0.5	PCB-1248
December-17	1.16	<0.5	PCB-1248
March-18	<0.5	<0.5	PCB-1248
June-18	0.927	<0.5	PCB-1248
02-Oct-18	0.817	<0.5	PCB-1248
16-Oct-18	<0.5	<0.5	PCB-1248
February-19	<0.5	<0.5	PCB-1248
June-19	0.744	<0.5	PCB-1248
September-19	<0.5	<0.5	PCB-1248
November-19	6.23	<0.5	PCB-1248
March-20	<0.5	<0.5	PCB-1248
March-15	<0.5	<0.5	PCB-1254
July-15	<0.5	<0.5	PCB-1254
December-15	<0.5	<0.5	PCB-1254
March-16	<0.5	<0.5	PCB-1254
June-16	<0.5	<0.5	PCB-1254
September-16	<0.5	<0.5	PCB-1254
December-16	<0.5	<0.5	PCB-1254
March-17	<0.5	<0.5	PCB-1254
August-17	<0.5	<0.5	PCB-1254
September-17	<0.5	<0.5	PCB-1254
December-17	<0.5	<0.5	PCB-1254
March-18	<0.5	<0.5	PCB-1254
June-18	<0.5	<0.5	PCB-1254
02-Oct-18	<0.5	<0.5	PCB-1254
16-Oct-18	<0.5	<0.5	PCB-1254
February-19	<0.5	<0.5	PCB-1254
June-19	<0.5	<0.5	PCB-1254
September-19	<0.5	<0.5	PCB-1254
November-19	<0.5	<0.5	PCB-1254
March-20	<0.5	<0.5	PCB-1254
March-15	<0.5	<0.5	PCB-1260
July-15	<0.5	<0.5	PCB-1260
December-15	<0.5	<0.5	PCB-1260
March-16	<0.5	<0.5	PCB-1260
June-16	<0.5	<0.5	PCB-1260

SHERMANS DALE COMPRESSOR STATION PCBs DATA* 2015-2020

Date	Influent Result	Effluent Result	Parameter
September-16	<0.5	<0.5	PCB-1260
December-16	<0.5	<0.5	PCB-1260
March-17	<0.5	<0.5	PCB-1260
August-17	<0.5	<0.5	PCB-1260
September-17	<0.5	<0.5	PCB-1260
December-17	<0.5	<0.5	PCB-1260
March-18	<0.5	<0.5	PCB-1260
June-18	<0.5	<0.5	PCB-1260
02-Oct-18	<0.5	<0.5	PCB-1260
16-Oct-18	<0.5	<0.5	PCB-1260
February-19	<0.5	<0.5	PCB-1260
June-19	<0.5	<0.5	PCB-1260
September-19	<0.5	<0.5	PCB-1260
November-19	<0.5	<0.5	PCB-1260
March-20	<0.5	<0.5	PCB-1260
March-15	2.4	<0.5	TOTAL PCB
July-15	2.6	<0.5	TOTAL PCB
December-15	3.3	<0.5	TOTAL PCB
March-16	5.9	<0.5	TOTAL PCB
June-16	2	<0.5	TOTAL PCB
September-16	2.7	<0.5	TOTAL PCB
December-16	1.68	<0.5	TOTAL PCB
March-17	1.07	<0.5	TOTAL PCB
August-17	<0.5	<0.5	TOTAL PCB
September-17	<0.5	<0.5	TOTAL PCB
December-17	1.16	<0.5	TOTAL PCB
March-18	<0.5	<0.5	TOTAL PCB
June-18	0.927	<0.5	TOTAL PCB
02-Oct-18	0.817	<0.5	TOTAL PCB
16-Oct-18	<0.5	<0.5	TOTAL PCB
February-19	<0.5	<0.5	TOTAL PCB
June-19	0.744	<0.5	TOTAL PCB
September-19	<0.5	<0.5	TOTAL PCB
November-19	6.23	<0.5	TOTAL PCB
March-20	3.32	<0.5	TOTAL PCB
AVG	2.49	<0.5	
MAX	6.23	<0.5	

Notes:

** All results in ug/L*

<0.5 Not Detected at RL 0.5 ug/l

All results reported to PDEP on DMR

Attachment B

Toxics Management Spreadsheet

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.1, October 2020

Discharge Information

Instructions | Discharge | Stream

Facility: Texas Eastern Shermansdale Compressor Sta | NPDES Permit No.: PA0087769 | Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste | Wastewater Description: GWCU

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
0.0576	100	5.6						

					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
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											
	Total Iron	µg/L											
	Total Lead	µg/L											
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	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	<										
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										

Group 3	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	<											
	Methyl Bromide	µg/L	<											
	Methyl Chloride	µg/L	<											
	Methylene Chloride	µg/L	<											
	1,1,2,2-Tetrachloroethane	µg/L	<											
	Tetrachloroethylene	µg/L	<											
	Toluene	µg/L	<											
	1,2-trans-Dichloroethylene	µg/L	<											
	1,1,1-Trichloroethane	µg/L	<											
	1,1,2-Trichloroethane	µg/L	<											
	Trichloroethylene	µg/L	<											
	Vinyl Chloride	µg/L	<											
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	<											
	Benzo(a)Pyrene	µg/L	<											
	3,4-Benzofluoranthene	µg/L	<											
	Benzo(ghi)Perylene	µg/L	<											
	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	<											
	Dibenzo(a,h)Anthrancene	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	<											
	2,6-Dinitrotoluene	µg/L	<											
	Di-n-Octyl Phthalate	µg/L	<											
	1,2-Diphenylhydrazine	µg/L	<											
	Fluoranthene	µg/L	<											
	Fluorene	µg/L	<											
	Hexachlorobenzene	µg/L	<											
	Hexachlorobutadiene	µg/L	<											
	Hexachlorocyclopentadiene	µg/L	<											
	Hexachloroethane	µg/L	<											
	Indeno(1,2,3-cd)Pyrene	µg/L	<											

	Isophorone	µg/L	<											
	Naphthalene	µg/L	<											
	Nitrobenzene	µg/L	<											
	n-Nitrosodimethylamine	µg/L	<											
	n-Nitrosodi-n-Propylamine	µg/L	<											
	n-Nitrosodiphenylamine	µg/L	<											
	Phenanthrene	µg/L	<											
	Pyrene	µg/L	<											
	1,2,4-Trichlorobenzene	µg/L	<											
Group 6	Aldrin	µg/L	<											
	alpha-BHC	µg/L	<											
	beta-BHC	µg/L	<											
	gamma-BHC	µg/L	<											
	delta BHC	µg/L	<											
	Chlordane	µg/L	<											
	4,4-DDT	µg/L	<											
	4,4-DDE	µg/L	<											
	4,4-DDD	µg/L	<											
	Dieldrin	µg/L	<											
	alpha-Endosulfan	µg/L	<											
	beta-Endosulfan	µg/L	<											
	Endosulfan Sulfate	µg/L	<											
	Endrin	µg/L	<											
	Endrin Aldehyde	µg/L	<											
	Heptachlor	µg/L	<											
	Heptachlor Epoxide	µg/L	<											
	PCB-1016	µg/L	<	0.5										
	PCB-1221	µg/L	<	0.5										
	PCB-1232	µg/L	<	0.5										
	PCB-1242	µg/L		3.32										
	PCB-1248	µg/L		6.23										
	PCB-1254	µg/L	<	0.5										
	PCB-1260	µg/L	<	0.5										
	PCBs, Total	µg/L		6.23										
	Toxaphene	µg/L	<											
	2,3,7,8-TCDD	ng/L	<											
Group 7	Gross Alpha	pCi/L												
	Total Beta	pCi/L	<											
	Radium 226/228	pCi/L	<											
	Total Strontium	µg/L	<											
	Total Uranium	µg/L	<											
	Osmotic Pressure	mOs/kg												
	PCB-1016	µg/L												
	PCB-1221	µg/L												
	PCB-1232	µg/L												
	PCB-1242	µg/L												
	PCB-1248	µg/L												
	PCB-1254	µg/L												
	PCB-1260	µg/L												
	PCBs, Total	µg/L												

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Toxics Management Spreadsheet
Version 1.1, October 2020

Stream / Surface Water Information

Texas Eastern Shermansdale Compressor Station, NPDES Permit No. PA0087769, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Trib 011040 Sherman Creek** No. Reaches to Model: **1**

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	011040	0.3	425	1.11			Yes
End of Reach 1	011040	0	405	1.14			Yes

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

Location	RMI	LFY (cfs/mi²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.3	0.09										100	7		
End of Reach 1	0	0.09													

Q_h

Location	RMI	LFY (cfs/mi²)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	0.3														
End of Reach 1	0														

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Toxics Management Spreadsheet
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Model Results

Texas Eastern Shermansdale Compressor Station, NPDES Permit No. PA0087769, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 0.447 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 5.91

Pollutants	Stream Conc	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	

☑ ***CFC*** CCT (min): 0.447 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 5.91

Pollutants	Stream Conc	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	0.03	

☑ ***THH*** CCT (min): 0.447 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc	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	

☑ ***CRL*** CCT (min): 0.426 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc	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	0.0008	

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

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
PCBs, Total	3.73E-07	5.82E-07	0.0008	0.001	0.002	µg/L	0.0008	CRL	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
PCB-1016	N/A	N/A	No WQS
PCB-1221	N/A	N/A	No WQS
PCB-1232	N/A	N/A	No WQS
PCB-1242	N/A	N/A	No WQS
PCB-1248	N/A	N/A	No WQS
PCB-1254	N/A	N/A	No WQS
PCB-1260	N/A	N/A	No WQS