pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0057916**
Facility Type	**Industrial**	APS ID	**1032924**
Major / Minor	**Minor**	Authorization ID	**1344255**

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

Applicant and Facility Information

Applicant Name	**Schlumberger Tech Corp**	Facility Name	**North Penn Area 12 Superfund Site**
Applicant Address	121 Industrial Boulevard	Facility Address	1547 North Trooper Road
	Sugar Land, TX 77478-3127		Worcester, PA 19490
Applicant Contact	Dawn Greening	Facility Contact	Philip Jones
Applicant Phone	(318) 393-6480	Facility Phone	706-540-9285
Client ID	140020	Site ID	527705
SIC Code	7389	Municipality	Worcester Township
SIC Description	Services - Business Services, NEC	County	Montgomery
Date Application Received	March 1, 2021	EPA Waived?	Yes
Date Application Accepted	August 4, 2021	If No, Reason	

Purpose of Application: Permit Renewal.

Summary of Review

The PA Department of Environmental Protection (PADEP/Department) received an NPDES permit renewal application from Schlumberger Tech Corp (permittee) on March 1, 2021 for permittee's North Penn Area 12 Superfund Site (facility). The facility treated 50,000 GPD of groundwater that discharged into a dry swale to an UNT to Stoney Creek in state watershed 3-F. The facility is located in Worcester Township, Montgomery County. The current NPDES permit expired on August 31, 2021. The terms and conditions of the current permit is automatically extended since a renewal application is received at least 180 days prior to the permit expiration date.

Renewal NPDES permit under Clean Water Program is not subjected to PADEP's PDG, per 021-2100-001. This fact sheet is developed in accordance with 40 CFR §124.56.

Changes in this renewal: None

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.

Approve	Deny	Signatures	Date
√		Reza H. Chowdhury, E.I.T. / Project Manager	September 9, 2021
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	09/09/2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.05
Latitude	40º 10' 42"	Longitude	-75º 21' 11"
Quad Name	Lansdale	Quad Code	1743
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Unnamed Tributary of Stony Creek (TSF, MF)	Stream Code	00960
NHD Com ID	25979174	RMI	0.3900
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	Dry stream	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-F	Chapter 93 Class.	TSF, 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	

Changes Since Last Permit Issuance: None

Other Comments: None

Treatment Plant Description

The North Penn Area 12 site is one of several superfund sites in the North Penn area. The groundwater is contaminated primarily with TCE, with trace amounts of other related VOCs. The Pump and Treat (P&T) system was shut down in May 2015 to evaluate alternative treatment technologies for the site. Pilot study activities were conducted between December 2015 and 2019. While the goal is to eliminate the need for the P&T system, the system must be maintained such that it can be restarted in a reasonable timeframe if deemed necessary in accordance with an agreement with EPA. That was the reason why this NPDES permit renewal was submitted.

The site was listed in the NPL on February 21, 1990. In 1997, USEPA issued a ROD. The ROD specified remedies were completed by August 31, 2000 and the groundwater extraction and treatment system started regular operation in September 2000 with 9 extraction wells (EW-1 though EW-9). In 2004, EW-5 through EW-7 were removed from service due to consistently low groundwater pumping volumes and low mass recovery. In November 2007, an additional extraction well (EW-10) was added to the system. In 2014, the system was operated with six extraction wells (EW-1, EW-2, EW-3, EW-4, EW-8, and EW-10). EW-1, EW-2, and EW-3 were removed from service on December 31, 2014. The treatment system was shut down in May 2015 and anticipated that the system will no longer be needed in future.

The discharge is into a dry swale that runs approximately 0.2 miles until it reaches an UNT to Stoney Creek.

Development of Effluent Limitations

Technology Based Limits

Effluent Limitation Guidelines (ELGs) have not been developed for Groundwater Remediation Systems. In the absence of ELGs, technology limits are based on Best Professional Judgment (BPJ) as authorized by Section 402(a)(1) of the Clean Water Act. In developing these limits, the specific factors required in 40 CFR Part 125.3(d) were considered. Department guidelines recommend that groundwater treatment systems involving the cleanup of volatile organic compounds achieve at least 90% removal efficiency. Trichloroethylene (TCE) was selected as the main pollutant of concern, because TCE is consistently detected in the groundwater at concentrations significantly higher than relevant cleanup standards, and is the

only parameter detected in the effluent since 2001. However, the water quality-based limit for TCE has been determined to be more restrictive than the technology-based limit.

Water Quality Based Effluent Limits (WQBEL)

Since the groundwater treatment facility discharges to a dry swale, the water quality-based limits are based on the Department's Dry Stream Guidance, 391-2000-014. Per the guidance:

1. If a maximum contaminant level (MCL) has been promulgated for a chemical in question, the MCL is the permit limit.

2. If no MCL has been finalized, the effluent limit is set to the human health-based criterion developed specifically for groundwater.

Since the system is not currently operating, the required influent and effluent samples weren't collected and analyzed, however, historical data was submitted with the application. A review of the submitted historical sample results indicated the following pollutants were detected:

Pollutant	Maximum concentration (ug/l)	Average concentration (ug/l)	QL used (ug/l)	SDW's MCL (ug/l)
Trichloroethylene	0.7	0.4	0.5	5
Tetrachloroethylene	0.9	<0.6	0.5	5
1,1-Dichloroethylene	4.4	<0.5	0.5	7
1,1,1-Trichloroethane	4.2	1.0	0.5	200

It is evident that even though all pollutants were detected at QL, their maximum concentrations are below SDW's MCLs and therefore, they are not pollutants of concern. TCE, however, is an existing pollutant with limitations which will be carried over in this renewal, along with pH limits and flow monitoring.

PFOA and PFOS:

Leidos prepared a site inspection report on March 2021 for US Army Corps of Engineers titled "Site Inspection for Per-and Polyfluoroalkyl Substances (PFAS) in support of Base Realignment and Closure (BRAC) Program North Penn Memorial U.S. Army Reserve Center" (contract number W912DR-13-D-0017). The site inspection was conducted for North Penn Memorial U.S. Army Reserve Center (NPARC) as a desktop evaluation for the data collected between June 2016 and May 2018 from NPARC monitoring wells, surrounding area wells located on residential properties, and North Penn Area 12. The evaluation stated a maximum concentration (PFOA+PFOS) of 23 ng/l at Area 12, indicating this facility is not a source. However, due to close proximity to NPARC (which has potential areas of concern), a Part C condition will be added in the permit requiring the permittee to sample for PFOA, PFOS, and calculate total PFOA+PFOS within one month of wells put back in service.

Existing limitations

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab
Trichloroethylene	XXX	XXX	0.005 Avg Mo	XXX	XXX	0.013	1/month	Grab

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 Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
Trichloroethylene	XXX	XXX	XXX	0.005	XXX	0.013	1/month	Grab

Compliance Sampling Location: At Outfall 001

Other Comments: None