Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0238899**
Facility Type	**Industrial**	APS ID	**1102613**
Major / Minor	**Minor**	Authorization ID	**1464990**

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

Applicant and Facility Information

Applicant Name	**Oil Creek Plastics, Inc.**	Facility Name	**Oil Creek Plastics**
Applicant Address	45619 State Highway 27, P.O. Box 385 Titusville, PA 16354-5729	Facility Address	45619 State Highway 27 Titusville, PA 16354-5729
Applicant Contact	Richard Baily (President)	Facility Contact	Matt Grandinette (Consultant)
Applicant Phone	(814) 827-3661; rbaily@oilcreek.com	Facility Phone	(814) 827-3661; mgrand@datagraphicsenvironmental.com
Client ID	69673	Site ID	452315
SIC Code	3084,3089	Municipality	Oil Creek Township
SIC Description	Manufacturing - Plastics Products, Nec,Manufacturing - Plastics, Pipe	County	Crawford
Date Application Received	November 29, 2023	EPA Waived?	Yes
Date Application Accepted	December 13, 2023	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit for an existing discharge of industrial waste and stormwater.

Summary of Review

This facility manufactures polyethylene pipe. Plant operations include extrusion, sizing, printing, and cutting of the pipe.

Waste streams discharged at this facility include contact cooling water, cooling tower blowdown and uncontaminated stormwater.

The facility's PPC Plan was last updated in September 2024.

There are currently three chemical additives used at the facility. All were previously approved by the Department.

There are currently no open violations listed in EFACTS for this permittee (4/02/2026).

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
X		Adam J. Pesek Adam J. Pesek, E.I.T. / Project Manager	April 2, 2026
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	April 3, 2026

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.01612
Latitude	41º 37' 13"	Longitude	-79º 38' 39"
Quad Name	Titusville South	Quad Code	0608
Wastewater Description:	Contact Cooling Water (CCW), cooling tower blowdown, and uncontaminated stormwater		
Receiving Waters	Unnamed Tributary to Pine Creek	Stream Code	54223
NHD Com ID	100473065	RMI	0.15
Drainage Area	0.92 (trib); 85.7 (perennial)	Yield (cfs/mi^2)	0.0374 (trib); 0.103 (perennial)
Q_{7-10} Flow (cfs)	0.0344 (trib); 8.83 (perennial)	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	1174	Slope (ft/ft)	0.00274
Watershed No.	16-E	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	8.1	WQN 868 (Geomean-July thru Sept-2005-2014)
Temperature (°C)	20	Default for CWF
Hardness (mg/L)	51.6	2023 Renewal Application
Other:	0.04	WQN 868 (7/13/2011 sample)

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. – Emlenton intake	
PWS Waters	Allegheny River	Flow at Intake (cfs)	1801
PWS RMI	90.0	Distance from Outfall (mi)	50.7

Changes Since Last Permit Issuance: None

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0
Latitude	41º 37' 11"	Longitude	-79º 38' 33"
Quad Name	Titusville South	Quad Code	0608
Wastewater Description:	Uncontaminated Stormwater		
Receiving Waters	Unnamed Tributary to Pine Creek (CWF)	Stream Code	54223
NHD Com ID	100473065	RMI	0.05
Drainage Area	0.9 (dry); 85.7 (perennial)	Yield (cfs/mi^2)	0 (dry); 0.103 (perennial)
Q_{7-10} Flow (cfs)	0 (Dry); 8.83	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1174	Slope (ft/ft)	0.00274
Watershed No.	16-E	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	8.1	WQN 868 (Geomean-July thru Sept-2005-2014)
Temperature (°C)	20	Default for CWF
Hardness (mg/L)	51.6	2023 Renewal Application
Other:	0.04	WQN 868 (7/13/2011 sample)

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. – Emlenton Intake	
PWS Waters	Allegheny River	Flow at Intake (cfs)	1801
PWS RMI	90.0	Distance from Outfall (mi)	50.8

Changes Since Last Permit Issuance: None

Other Comments:

Treatment Facility Summary

Treatment Facility Name: Oil Creek Plastics

WQM Permit No.	Issuance Date
2003201	11/06/2003

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Other Processes (Industrial Waste)	Temperature Control (Cooling)	No Disinfection	

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
1.728	N/A			

Changes Since Last Permit Issuance: Two new cooling towers are proposed to be added in the near future per correspondence with the permittee in October 2024. An amendment to the WQM Permit was not deemed necessary for this addition. The permittee does not expect any change in discharge flow rate as a result of the new cooling towers being installed.

Other Comments: Treatment consists of two cooling towers, cooling tower tank, and discharge of blowdown.

Compliance History	
Summary of DMRs:	No effluent limit violations have been reported in the last 5 years. One late DMR submission on 10/29/2018.
Summary of Inspections:	Last compliance evaluation inspection was conducted on 10/21/2024. No violations reported as a result of the inspection.

Other Comments: **None**

Compliance History

DMR Data for Outfall 001 (from November 1, 2023 to October 31, 2024)

Parameter	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23
Flow (MGD) Average Monthly	0.004	0.009	0.005	0.009	0.008	0.010	0.015	0.010	0.014	0.013	0.018	0.021
pH (S.U.) Daily Minimum	7.8	7.5	7.5	7.4	7.4	7.3	7.0	7.4	7.2	7.4	7.1	7.1
pH (S.U.) Daily Maximum	8.9	8.9	7.7	8.2	7.7	7.4	7.5	7.8	7.8	7.8	7.9	7.7
BOD5 (lbs/day) Daily Maximum	< 0.193	< 0.139	< 0.134	< 0.318	< 0.193	< 0.432	< 0.480	< 0.541	< 0.360	1.621	1.12	< 0.257
BOD5 (mg/L) Daily Maximum	< 3.0	< 2.0	< 2.0	< 3.0	< 3.0	< 4.8	< 4.8	< 4.8	< 4.0	15.3	13.0	< 4.0
TSS (lbs/day) Daily Maximum	< 0.322	< 0.346	< 0.334	< 0.530	< 0.322	< 0.450	< 0.500	< 0.563	< 0.450	< 0.530	< 0.429	< 0.322
TSS (mg/L) Daily Maximum	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Oil and Grease (lbs/day) Daily Maximum	< 0.309	< 0.346	< 0.321	< 0.519	< 0.315	< 0.423	< 0.470	< 0.529	< 0.441	< 0.498	< 0.429	< 0.322
Oil and Grease (mg/L) Average Monthly	< 4.8	< 5.0	< 4.8	< 4.9	< 4.9	< 4.7	< 4.7	< 4.7	< 4.9	< 4.7	< 5.0	< 5.0
Oil and Grease (mg/L) Daily Maximum	< 4.8	< 5.0	< 4.8	< 4.9	< 4.9	< 4.7	< 4.7	< 4.7	< 4.9	< 4.7	< 5.0	< 5.0

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.01612
Latitude 41º 37' 13" **Longitude** -79º 38' 39"
Wastewater Description: Contact Cooling Water (CCW), cooling tower blowdown, and uncontaminated stormwater.

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
BOD_5	26	Daily Maximum	40 CFR 463.12	
Total Suspended Solids	19	Daily Maximum	40 CFR 463.12	
pH	6.0 – 9.0 S.U.	Min – Max	40 CFR 463.12	95.2(1)(i)
Oil & Grease	29	Daily Maximum	40 CFR 463.12	
Oil & Grease	15	Average Monthly		95.2(2)(ii)
Oil & Grease	30	IMAX		95.2(2)(ii)

Comments: None

Water Quality-Based Limitations

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

Parameter	Limit (ºF)	SBC	Model
Temperature Jan 1 - 31	55.7	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Feb 1 - 28	52.5	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Mar 1 - 31	71	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Apr 1 - 15	73.7	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Apr 16 - 30	65.8	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature May 1 - 15	63	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature May 16 - 31	67	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Jun 1 - 15	68.1	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Jun 16 - 30	72.1	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Jul 1 - 31	74.3	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Aug 1 - 15	72.9	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Aug 16 - 31	72.9	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Sep 1 - 15	68.5	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Sep 16 - 30	62.5	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Oct 1 - 15	57.7	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0

Temperature Oct 16 - 31	53.7	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Nov 1 - 15	49.2	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Nov 16 - 30	46.4	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
Temperature Dec 1 - 31	56.6	Daily Maximum	Thermal Limits Spreadsheet Ver 1.0
BOD	21.0	Average Monthly	

Comments:

Temperature modeling was conducted for this permit renewal based on a determination that there were designated uses to protect at the point of discharge. This yielded the above calculated water quality-based effluent limitations. The previous permit did not have any temperature limits or monitoring so only application data was available to determine if there was reasonable potential for limitations to be placed in the permit and if a compliance schedule was needed. Based on application sampling (application summer temperature average of 56 degrees Fahrenheit and maximum of 57.1 degrees Fahrenheit), it is not apparent that the permittee will be able to meet the new temperature limits consistently. Therefore, a compliance schedule of three years is being proposed in the draft permit with monitoring and requirements to do a feasibility study and make any operational or physical changes at this facility prior to the new temperature limits being made effective.

Quarterly monitoring for PFAS parameters – PFOA, PFOS, PFBS, and HFPO-DA – was added to the renewed permit in accordance with a Department directive, under the authority of Chapter 92a.51. A footnote was also for discontinuation of sampling requirements for PFAS parameters after four consecutive non-detect are reported for all parameters at or below the Target QLs. Note annual sampling was chosen because this is a major POTW that does not have any industrial users.

Best Professional Judgment (BPJ) Limitations

Comments: No monitoring requirements were placed in the permit distinctly for stormwater (Outfall 001 or 002) due the permittee citing the stormwater received meets the definition of “No Exposure” and a review of the stormwater application sampling and aerial imagery that reaffirms a condition of no exposure does likely exist.

Anti-Backsliding

No backsliding of limits were proposed as part of this permit renewal.

Development of Effluent Limitations

Outfall No.	002	**Design Flow (MGD)**	0
Latitude	41º 37' 11"	**Longitude**	-79º 38' 32"

Wastewater Description: Uncontaminated Stormwater

Technology-Based Limitations

N/A

Water Quality-Based Limitations

N/A

Best Professional Judgment (BPJ) Limitations

Comments: As discussed on the previous page for Outfall 001, no monitoring requirements were placed in the permit distinctly for stormwater (Outfall 001 or 002) due the permittee citing the stormwater received meets the definition of “No Exposure” and a review of the stormwater application sampling and aerial imagery that reaffirms a condition of no exposure does likely exist.

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 Three Years After Permit Effective 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		
Temperature (ºF)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/week	Measured

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

Other Comments: Monitoring during this interim period is intended to help determine if additional treatment or process changes are necessary to meet new temperature limits in the final period.

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: Three Years After 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		
Temperature (ºF) Jan 1 - 31	XXX	XXX	XXX	55.7 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Feb 1 - 28	XXX	XXX	XXX	52.5 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Mar 1 - 31	XXX	XXX	XXX	71 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Apr 1 - 15	XXX	XXX	XXX	73.7 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Apr 16 - 30	XXX	XXX	XXX	65.8 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) May 1 - 15	XXX	XXX	XXX	63 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) May 16 - 31	XXX	XXX	XXX	67 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Jun 1 - 15	XXX	XXX	XXX	68.1 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Jun 16 - 30	XXX	XXX	XXX	72.1 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Jul 1 - 31	XXX	XXX	XXX	74.3 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Aug 1 - 15	XXX	XXX	XXX	72.9 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Aug 16 - 31	XXX	XXX	XXX	72.9 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Sep 1 - 15	XXX	XXX	XXX	68.5 Daily Max	XXX	XXX	Continuous	Recorded

Outfall 001 , Continued (from Three Years After 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		
Temperature (ºF) Sep 16 - 30	XXX	XXX	XXX	62.5 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Oct 1 - 15	XXX	XXX	XXX	57.7 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Oct 16 - 31	XXX	XXX	XXX	53.7 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Nov 1 - 15	XXX	XXX	XXX	49.2 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Nov 16 - 30	XXX	XXX	XXX	46.4 Daily Max	XXX	XXX	Continuous	Recorded
Temperature (ºF) Dec 1 - 31	XXX	XXX	XXX	56.6 Daily Max	XXX	XXX	Continuous	Recorded

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

Other Comments:

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" (386-0400-001), 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/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
BOD5	2.8	4.1	XXX	21.0	26.0	32	1/month	8-Hr Composite
TSS	XXX	3.0	XXX	XXX	19.0	23	1/month	8-Hr Composite
Oil and Grease	XXX	4.6	XXX	15.0	29.0	30	1/month	Grab
PFOA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

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

Other Comments: Mass limits were retained from the previous permit for the proposed renewed NPDES Permit.

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16E	54223	Trib 54223 to Pine Creek	**0.150**	1174.00	0.90	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.037	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	8.10	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Oil Creek Plast	PA0238899	0.0161	0.0000	0.0000	0.000	25.00	7.10

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	26.00	2.00	0.00	1.56
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.04	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16E	54223	Trib 54223 to Pine Creek	**0.001**	1158.00	0.96	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.037	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	8.10	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	0.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
16E	54223	Trib 54223 to Pine Creek

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
0.150	0.00	0.00	0.00	.0249	0.02034	.278	2.93	10.54	0.03	0.297	24.98	7.10
Q1-10 Flow												
0.150	0.00	0.00	0.00	.0249	0.02034	NA	NA	NA	0.03	0.297	24.99	7.10
Q30-10 Flow												
0.150	0.00	0.00	0.00	.0249	0.02034	NA	NA	NA	0.03	0.297	24.97	7.10

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
16E	54223	Trib 54223 to Pine Creek

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.150	Oil Creek Plast	10.08	10.11	10.08	10.11	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.150	Oil Creek Plast	1.31	1.32	1.31	1.32	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
0.15	Oil Creek Plast	21.72	21.72	1.32	1.32	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
16E	54223	Trib 54223 to Pine Creek

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.150	0.016	24.980	7.102
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
2.935	0.278	10.539	0.031
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
21.64	1.302	1.31	1.027
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.009	25.161	Owens	6
Reach Travel Time (days)			
0.297			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.030	20.61	1.27	6.05
0.059	19.63	1.24	6.12
0.089	18.70	1.20	6.21
0.119	17.81	1.16	6.30
0.149	16.97	1.13	6.39
0.178	16.16	1.09	6.48
0.208	15.39	1.06	6.57
0.238	14.66	1.03	6.65
0.267	13.97	1.00	6.73
0.297	13.30	0.97	6.80

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
16E	54223	Trib 54223 to Pine Creek

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
0.150	Oil Creek Plast	PA0238899	0.016	CBOD5	21.72		
				NH3-N	1.32	2.64	
				Dissolved Oxygen			6

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Oil Creek Plastics** NPDES Permit No.: **PA0238899** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **CCW, NCCW, SW**

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
0.01612	45.27	7.1						

					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		135									
	Chloride (PWS)	mg/L		36.4									
	Bromide	mg/L		0.39									
	Sulfate (PWS)	mg/L		13.7									
	Fluoride (PWS)	mg/L		0.215									
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	mg/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	mg/L											
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<	1.95									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	0.51									
	Benzene	µg/L	<	0.43									
	Bromoform	µg/L	<	0.34									

Group 3	Carbon Tetrachloride	µg/L	<	0.51									
	Chlorobenzene	µg/L	<	0.21									
	Chlorodibromomethane	µg/L	<	0.39									
	Chloroethane	µg/L	<	0.42									
	2-Chloroethyl Vinyl Ether	µg/L	<	4									
	Chloroform	µg/L	<	0.51									
	Dichlorobromomethane	µg/L	<	0.32									
	1,1-Dichloroethane	µg/L	<	0.42									
	1,2-Dichloroethane	µg/L	<	0.39									
	1,1-Dichloroethylene	µg/L	<	0.33									
	1,2-Dichloropropane	µg/L	<	0.42									
	1,3-Dichloropropylene	µg/L	<	0.33									
	1,4-Dioxane	µg/L	<	0.34									
	Ethylbenzene	µg/L	<	0.27									
	Methyl Bromide	µg/L		0.92									
	Methyl Chloride	µg/L	<	0.36									
	Methylene Chloride	µg/L	<	0.45									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.36									
	Tetrachloroethylene	µg/L	<	0.39									
	Toluene	µg/L	<	0.33									
	1,2-trans-Dichloroethylene	µg/L	<	0.39									
	1,1,1-Trichloroethane	µg/L	<	0.38									
	1,1,2-Trichloroethane	µg/L	<	0.24									
	Trichloroethylene	µg/L	<	0.46									
	Vinyl Chloride	µg/L	<	0.46									
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	<										
	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	<										
	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											

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Oil Creek Plastics, NPDES Permit No. PA0238899, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **UNT to Pine 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	054223	0.15	1174	0.92			Yes
End of Reach 1	054223	0.001	1154	1.09			Yes

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

Location	RMI	LFY (cfs/mi²)*	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	0.15	0.0374										51.6	8.1		
End of Reach 1	0.001	0.0374				350									

Q_h

Location	RMI	LFY (cfs/mi²)	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	0.15														
End of Reach 1	0.001														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Oil Creek Plastics, NPDES Permit No. PA0238899, Outfall 001

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

☑ ***Hydrodynamics***

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

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)
0.15	0.03		0.03	0.025	0.025	0.324	3.64	11.243	0.05	0.181	0.208
0.001	0.04		0.041								

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)
0.15	0.39		0.39	0.025	0.025	0.762	3.64	4.774	0.15	0.061	0.151
0.001	0.453		0.45								

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 0.208 PMF: 1 Analysis Hardness (mg/l): 48.94 Analysis pH: 7.42

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	7.14	
Acrylonitrile	0	0		0	650	650	1,547	
Benzene	0	0		0	640	640	1,523	
Bromoform	0	0		0	1,800	1,800	4,284	
Carbon Tetrachloride	0	0		0	2,800	2,800	6,663	
Chlorobenzene	0	0		0	1,200	1,200	2,856	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	42,836	
Chloroform	0	0		0	1,900	1,900	4,522	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	

1,2-Dichloroethane	0	0		0	15,000	15,000	35,696	
1,1-Dichloroethylene	0	0		0	7,500	7,500	17,848	
1,2-Dichloropropane	0	0		0	11,000	11,000	26,177	
1,3-Dichloropropylene	0	0		0	310	310	738	
Ethylbenzene	0	0		0	2,900	2,900	6,901	
Methyl Bromide	0	0		0	550	550	1,309	
Methyl Chloride	0	0		0	28,000	28,000	66,633	
Methylene Chloride	0	0		0	12,000	12,000	28,557	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	2,380	
Tetrachloroethylene	0	0		0	700	700	1,666	
Toluene	0	0		0	1,700	1,700	4,046	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	16,182	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	7,139	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	8,091	
Trichloroethylene	0	0		0	2,300	2,300	5,473	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 0.208 PMF: 1 Analysis Hardness (mg/l): 48.94 Analysis pH: 7.42

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	7.14	
Acrylonitrile	0	0		0	130	130	309	
Benzene	0	0		0	130	130	309	
Bromoform	0	0		0	370	370	881	
Carbon Tetrachloride	0	0		0	560	560	1,333	
Chlorobenzene	0	0		0	240	240	571	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	8,329	
Chloroform	0	0		0	390	390	928	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	7,377	
1,1-Dichloroethylene	0	0		0	1,500	1,500	3,570	
1,2-Dichloropropane	0	0		0	2,200	2,200	5,235	
1,3-Dichloropropylene	0	0		0	61	61.0	145	
Ethylbenzene	0	0		0	580	580	1,380	
Methyl Bromide	0	0		0	110	110	262	
Methyl Chloride	0	0		0	5,500	5,500	13,089	
Methylene Chloride	0	0		0	2,400	2,400	5,711	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	500	
Tetrachloroethylene	0	0		0	140	140	333	
Toluene	0	0		0	330	330	785	

1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	3,332	
1,1,1-Trichloroethane	0	0		0	610	610	1,452	
1,1,2-Trichloroethane	0	0		0	680	680	1,618	
Trichloroethylene	0	0		0	450	450	1,071	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 0.208 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
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	
Acrolein	0	0		0	3	3.0	7.14	
Acrylonitrile	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	
Bromoform	0	0		0	N/A	N/A	N/A	
Carbon Tetrachloride	0	0		0	N/A	N/A	N/A	
Chlorobenzene	0	0		0	100	100.0	238	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	5.7	5.7	13.6	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	N/A	N/A	N/A	
1,1-Dichloroethylene	0	0		0	33	33.0	78.5	
1,2-Dichloropropane	0	0		0	N/A	N/A	N/A	
1,3-Dichloropropylene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	162	
Methyl Bromide	0	0		0	100	100.0	238	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	N/A	N/A	N/A	
1,1,2,2-Tetrachloroethane	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	136	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	238	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	23,798	
1,1,2-Trichloroethane	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 0.151 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

Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	N/A	N/A	N/A	
Acrylonitrile	0	0		0	0.06	0.06	1.0	
Benzene	0	0		0	0.58	0.58	9.67	
Bromoform	0	0		0	7	7.0	117	
Carbon Tetrachloride	0	0		0	0.4	0.4	6.67	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	13.3	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	N/A	N/A	N/A	
Dichlorobromomethane	0	0		0	0.95	0.95	15.8	
1,2-Dichloroethane	0	0		0	9.9	9.9	165	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	15.0	
1,3-Dichloropropylene	0	0		0	0.27	0.27	4.5	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Methyl Bromide	0	0		0	N/A	N/A	N/A	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	20	20.0	333	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	3.33	
Tetrachloroethylene	0	0		0	10	10.0	167	
Toluene	0	0		0	N/A	N/A	N/A	
1,2-trans-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,1,1-Trichloroethane	0	0		0	N/A	N/A	N/A	
1,1,2-Trichloroethane	0	0		0	0.55	0.55	9.17	
Trichloroethylene	0	0		0	0.6	0.6	10.0	
Vinyl Chloride	0	0		0	0.02	0.02	0.33	

☑ ***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

☑ ***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	Units	Comments

Pollutants	WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Acrolein	N/A	N/A	Discharge Conc < TQL
Acrylonitrile	N/A	N/A	Discharge Conc < TQL
Benzene	N/A	N/A	Discharge Conc < TQL
Bromoform	117	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	6.67	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorobenzene	238	µg/L	Discharge Conc < TQL
Chlorodibromomethane	13.3	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	8,329	µg/L	Discharge Conc < TQL
Chloroform	13.6	µg/L	Discharge Conc ≤ 25% WQBEL
Dichlorobromomethane	15.8	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	165	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	78.5	µg/L	Discharge Conc < TQL
1,2-Dichloropropane	15.0	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	4.5	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	162	µg/L	Discharge Conc < TQL
Methyl Bromide	238	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	13,089	µg/L	Discharge Conc < TQL
Methylene Chloride	333	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	3.33	µg/L	Discharge Conc < TQL
Tetrachloroethylene	167	µg/L	Discharge Conc < TQL
Toluene	136	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	238	µg/L	Discharge Conc < TQL
1,1,1-Trichloroethane	1,452	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	9.17	µg/L	Discharge Conc < TQL
Trichloroethylene	10.0	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.33	µg/L	Discharge Conc < TQL

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Instructions | *Inputs*

Facility: **Oil Creek Plastics**

Permit No.: **PA0238899**

Stream Name: **UNT to Pine Crek**

Analyst/Engineer: **A. Pesek**

Stream Q7-10 (cfs)*: **0.0**

Outfall No.: **001**

Analysis Type*: **CWF**

Facility Flows

Semi-Monthly Increment	Intake (Stream) (MGD)*	Intake (External) (MGD)*	Consumptive Loss (MGD)*	Discharge Flow (MGD)
Jan 1-31		0.01612		0.01612
Feb 1-29		0.01612		0.01612
Mar 1-31		0.01612		0.01612
Apr 1-15		0.01612		0.01612
Apr 16-30		0.01612		0.01612
May 1-15		0.01612		0.01612
May 16-31		0.01612		0.01612
Jun 1-15		0.01612		0.01612
Jun 16-30		0.01612		0.01612
Jul 1-31		0.01612		0.01612
Aug 1-15		0.01612		0.01612
Aug 16-31		0.01612		0.01612
Sep 1-15		0.01612		0.01612
Sep 16-30		0.01612		0.01612
Oct 1-15		0.01612		0.01612
Oct 16-31		0.01612		0.01612
Nov 1-15		0.01612		0.01612
Nov 16-30		0.01612		0.01612
Dec 1-31		0.01612		0.01612

Stream Flows

Q7-10 Multipliers (Default Shown)	PMF	Seasonal Stream Flow (cfs)	Downstream Stream Flow (cfs)
3.2	1.00	0.11	0.14
3.5	1.00	0.12	0.15
7	1.00	0.24	0.27
9.3	1.00	0.32	0.34
9.3	1.00	0.32	0.34
5.1	1.00	0.18	0.20
5.1	1.00	0.18	0.20
3	1.00	0.10	0.13
3	1.00	0.10	0.13
1.7	1.00	0.06	0.08
1.4	1.00	0.05	0.07
1.4	1.00	0.05	0.07
1.1	1.00	0.04	0.06
1.1	1.00	0.04	0.06
1.2	1.00	0.04	0.07
1.2	1.00	0.04	0.07
1.6	1.00	0.06	0.08
1.6	1.00	0.06	0.08
2.4	1.00	0.08	0.11

Thermal Limits Spreadsheet
Version 1.0, April 2024

Temperature

Ambient Stream Temperature (°F)*

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Thermal Limits Spreadsheet
Version 1.0, April 2024

Instructions | *CWF Results*

Recommended Limits for Case 1 or Case 2

Semi-Monthly Increment	**CWF** Target Maximum Stream Temp. (°F)	**Case 1** Daily WLA (Million BTUs/day)	**Case 2** Daily WLA (°F)
Jan 1-31	38	N/A -- Case 2	55.7
Feb 1-29	38	N/A -- Case 2	52.5
Mar 1-31	42	N/A -- Case 2	71.0
Apr 1-15	48	N/A -- Case 2	73.7
Apr 16-30	53	N/A -- Case 2	65.8
May 1-15	56	N/A -- Case 2	63.0
May 16-31	60	N/A -- Case 2	67.0
Jun 1-15	64	N/A -- Case 2	68.1
Jun 16-30	68	N/A -- Case 2	72.1
Jul 1-31	72	N/A -- Case 2	74.3
Aug 1-15	71	N/A -- Case 2	72.9
Aug 16-31	71	N/A -- Case 2	72.9
Sep 1-15	67	N/A -- Case 2	68.5
Sep 16-30	61	N/A -- Case 2	62.5
Oct 1-15	56	N/A -- Case 2	57.7
Oct 16-31	52	N/A -- Case 2	53.7
Nov 1-15	47	N/A -- Case 2	49.2
Nov 16-30	42	N/A -- Case 2	46.4
Dec 1-31	40	N/A -- Case 2	56.6

Date	Version
4/3/2024	1.0

Oil Creek Plastics
Oil Creek Township, Crawford County
PA0238899 Discharge pH

Outfall 001

Date	pH min	pH max	10^ -pH min	10^ -pH max	& pH max)	-Log (Ave pH)
Jul-22	6.2	7.1	6.31E-07	7.94E-08	3.55E-07	**6.4**
Aug-22	6.5	8.6	3.16E-07	2.51E-09	1.59E-07	**6.8**
Sep-22	7.3	8.8	5.01E-08	1.58E-09	2.59E-08	**7.6**
Jul-23	6.4	7.3	3.98E-07	5.01E-08	2.24E-07	**6.6**
Aug-23	7.1	8.7	7.94E-08	2E-09	4.07E-08	**7.4**
Sep-23	7.3	7.5	5.01E-08	3.16E-08	4.09E-08	**7.4**
Jul-24	7.4	8.2	3.98E-08	6.31E-09	2.31E-08	**7.6**
Aug-24	7.5	7.7	3.16E-08	2E-08	2.58E-08	**7.6**
Sep-24	7.5	8.9	3.16E-08	1.26E-09	1.64E-08	**7.8**
					Median:	**7.1**