pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0008222**
Facility Type	**Industrial**	APS ID	**1024485**
Major / Minor	**Minor**	Authorization ID	**1329180**

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

Applicant and Facility Information

Applicant Name	**Graymont (PA) Inc.**	Facility Name	**Graymont (PA) Inc. - Bellefonte Plant**
Applicant Address	375 Graymont Road	Facility Address	314 N Thomas Street
	Bellefonte, PA 16823-6869		Bellefonte, PA 16823-1244
Applicant Contact	Lacey Haney	Facility Contact	Lacey Haney
Applicant Phone	(814) 357-4503	Facility Phone	(814) 357-4542
Client ID	38358	Site ID	461582
SIC Code	3274	Municipality	Spring Township
SIC Description	Manufacturing - Lime	County	Centre
Date Application Received	October 1, 2020	EPA Waived?	Yes
Date Application Accepted	October 14, 2020	If No, Reason	
Purpose of Application	Renewal of an existing NPDES permit for the discharge of non-process wastewater and stormwater.		

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		*Derek S. Garner* Derek S. Garner / Project Manager	March 29, 2021
X		*Nicholas W. Hartranft* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	March 29, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.208
Latitude	40º 54' 50.40"	Longitude	-77º 47' 28.90"
Quad Name	Bellefonte	Quad Code	1123
Wastewater Description:	Groundwater / Spring Discharge		

Receiving Waters	Buffalo Run	Stream Code	22972
NHD Com ID	67179146	RMI	0.35
Drainage Area	27.1	Yield (cfs/mi^2)	0.775
Q_{7-10} Flow (cfs)	21.0	Q_{7-10} Basis	Streamgage No. 01547100
Elevation (ft)	738	Slope (ft/ft)	n/a
Watershed No.	9-C	Chapter 93 Class.	CWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	n/a		
Source(s) of Impairment	n/a		
TMDL Status	n/a	Name	n/a

Nearest Downstream Public Water Supply Intake	PA American Water		
PWS Waters	West Branch Susquehanna River	Flow at Intake (cfs)	679.73
PWS RMI	10.66	Distance from Outfall (mi)	87.3

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.236
Latitude	40º 54' 54.57"	Longitude	-77º 47' 17.91"
Quad Name	Bellefonte	Quad Code	1123
Wastewater Description:	Other Miscellaneous Discharges, Stormwater, Washing/Cleaning Wastewater		

Receiving Waters	Buffalo Run	Stream Code	22972
NHD Com ID	67179146	RMI	0.18
Drainage Area	27.2	Yield (cfs/mi^2)	0.775
Q_{7-10} Flow (cfs)	21.08	Q_{7-10} Basis	Streamgage No. 01547100
Elevation (ft)	735	Slope (ft/ft)	n/a
Watershed No.	9-C	Chapter 93 Class.	CWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	n/a		
Source(s) of Impairment	n/a		
TMDL Status	n/a	Name	n/a

Nearest Downstream Public Water Supply Intake	PA American Water		
PWS Waters	West Branch Susquehanna River	Flow at Intake (cfs)	679.73
PWS RMI	10.66	Distance from Outfall (mi)	87.47

Facility Summary

Lime materials are transported to the Bellefonte Plant via rail or truck. Once received, the materials undergo additional processing, packaging, and/or storage. Processing the received lime materials entails crushing or pulverizing (milling) the lime to produce a finer material. The milled lime product is either bagged or stored on-site in silos or bins.

The facility previously conducted a hydration process, described in the application as the process of reacting or slaking pulverized quicklime at atmospheric conditions with water to produce calcium hydroxide, but the process no longer takes place at the facility and is not anticipated to occur again before the next NPDES renewal period.

NPDES Permit No. PA0008222 covers two outfalls (001, 002). Outfall 001 historically discharged pumped groundwater to Buffalo Run from a 6-inch well when the water table was considered high to prevent flooding of the lime tunnel and basement. The lime tunnel has been filled and the production area associated with the basement is no longer in use. Outfall 001 has not discharged in over five years; however, the permittee still wishes to retain coverage of Outfall 001 in the permit for future use. Outfall 002 discharges wastewater from the acid treatment facility. Stormwater and miscellaneous wastewater is conveyed through a series of ponds before entering the acid treatment facility where sulfuric or hydrochloric acid is added to adjust the pH prior to discharge to Buffalo Run.

Compliance History

The facility was last inspected by DEP on May 2, 2019. The inspection did not identify any violations and notes that eDMR submissions are being submitted on time and complete.

eDMR submissions indicate compliance with effluent limitations.

The Bellefonte Plant has several open violations associated with DEP’s Air Quality Program. The violations are currently being addressed through the settlement process and should not impact renewing the NPDES permit.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.208
Latitude 40º 54' 51.10" **Longitude** -77º 47' 29.31"
Wastewater Description: Groundwater / Spring Discharge

Technology-Based Effluent Limitations (TBELs)

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

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

Outfall 001 has not discharged in over 14 years; however, data from when the outfall was discharging indicates that the concentrations in the discharge do not approach the above identified technology limits required by federal and state regulations. Accordingly, it is not necessary to establish limits for these two parameters in the permit.

There are no applicable effluent limit guidelines at 40 CFR Part 436, Subpart B – Crushed Stone Subcategory.

Water Quality-Based Limitations

A “Reasonable Potential Analysis” was not completed for Outfall 001 since there has not been a discharge in over 14 years.

Anti-Backsliding

No effluent limits or monitoring requirements are proposed to be made less stringent. Anti-backsliding regulations are not applicable.

Outfall No. 002 **Design Flow (MGD)** 0.236
Latitude 40º 54' 54.55" **Longitude** -77º 47' 17.89"
Wastewater Description: Other Miscellaneous Discharges, Stormwater, Washing/Cleaning Wastewater

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
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Oil and Grease	15	Average Monthly		95.2(2)(ii)
	30	IMAX		95.2(2)(ii)
Dissolved Iron	7.0	IMAX		95.2(4)

Sampling data for oil and grease taken throughout the permit's term shows a maximum average monthly value of 12.2 mg/l maximum daily concentration of 26.4 mg/l. These results indicate reasonable potential to exceed the existing technology-based limits of 15 mg/l average monthly and 30 mg/l instantaneous maximum. DEP recommends that the existing technology-based limits remain in the permit.

Dissolved iron sampling performed for the renewal application shows a concentration of less than 0.06 mg/l, which is well below the technology-based limit of 7.0 mg/l. Since there does not appear to be any reasonable potential to exceed the technology-based limit no limit or monitoring requirement is necessary; subject to the water quality analysis.

There are no applicable effluent limit guidelines at 40 CFR Part 436, Subpart B – Crushed Stone Subcategory.

Water Quality-Based Limitations

A reasonable potential analysis was completed in the Toxics Management Spreadsheet to determine the applicability of water quality-based limitations. The analysis (attached) indicates that no effluent limits or monitoring requirements are necessary.

Best Professional Judgment

The previous permit established total suspended solids effluent limitations of 30 mg/L average monthly, 60 mg/L daily maximum, and 75 mg/L instantaneous maximum. It is recommended that these limits remain in the permit.

Chesapeake Bay Requirements

Nitrogen and phosphorus sampling performed for the renewal application did not yield detectable concentrations. Since the discharge does not appear to add a net increase of nitrogen or phosphorus, no monitoring for these pollutants is necessary.

Existing Effluent Limitations and Monitoring Requirements

The existing effluent limitations and monitoring requirements are as follows:

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab

Compliance Sampling Location: Outfall 001

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
TSS	XXX	XXX	XXX	30.0	60.0	75	1/week	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	1/week	Grab

Compliance Sampling Location: Outfall 002

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)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab

Compliance Sampling Location: Outfall 001

Outfall 002. Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
TSS	XXX	XXX	XXX	30.0	60.0	75	1/week	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	1/week	Grab

Compliance Sampling Location: Outfall 002

Discharge Information

Instructions | Discharge | Stream

Facility: **Graymont (PA) Inc. - Bellefonte Plant**

NPDES Permit No.: **PA0008222**

Outfall No.: **002**

Evaluation Type: **Major Sewage / Industrial Waste**

Wastewater Description: **Washing/Cleaning, Misc.**

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
0.236	150	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
Group 1	Total Dissolved Solids (PWS)	mg/L		276									
	Chloride (PWS)	mg/L		4.31									
	Bromide	mg/L	<	0.023									
	Sulfate (PWS)	mg/L		85.2									
	Fluoride (PWS)	mg/L	<	0.099									
Group 2	Total Aluminum	µg/L		299									
	Total Antimony	µg/L	<	0.348									
	Total Arsenic	µg/L	<	0.0015									
	Total Barium	µg/L		12.9									
	Total Beryllium	µg/L	<	0.676									
	Total Boron	µg/L	<	56.5									
	Total Cadmium	µg/L	<	0.123									
	Total Chromium (III)	µg/L											
	Hexavalent Chromium	µg/L	<	0.25									
	Total Cobalt	µg/L		0.264									
	Total Copper	µg/L		3.78									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<	6									
	Dissolved Iron	µg/L	<	60									
	Total Iron	µg/L		190									
	Total Lead	µg/L		1.55									
	Total Manganese	µg/L		16.5									
	Total Mercury	µg/L	<	0.104									
	Total Nickel	µg/L		1.74									
	Total Phenols (Phenolics) (PWS)	µg/L		7									
	Total Selenium	µg/L	<	1.67									
	Total Silver	µg/L	<	1.37									
	Total Thallium	µg/L	<	0.068									
	Total Zinc	µg/L		12.8									
	Total Molybdenum	µg/L		1.54									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

Group 3	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	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	<										
	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											

Stream / Surface Water Information

Graymont (PA) Inc. - Bellefonte Plant, NPDES Permit No. PA0008222, Outfall 002

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Buffalo Run**

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	022972	0.18	735	27.2			Yes
End of Reach 1	022972	0	720	27.3			Yes

Q ***7-10***

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	0.18	0.775										100	7		
End of Reach 1	0	0.775													

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	0.18														
End of Reach 1	0														

Model Results

Graymont (PA) Inc. - Bellefonte Plant, NPDES Permit No. PA0008222, Outfall 002

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.776 Analysis Hardness (mg/l): 101.09 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
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	
Total Aluminum	0	0		0	750	750	34,337	
Total Antimony	0	0		0	1,100	1,100	50,362	
Total Arsenic	0	0		0	340	340	15,566	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	961,448	
Total Boron	0	0		0	8,100	8,100	370,844	
Total Cadmium	0	0		0	2.035	2.16	98.7	Chem Translator of 0.944 applied
Hexavalent Chromium	0	0		0	16	16.3	746	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	4,349	
Total Copper	0	0		0	13.577	14.1	648	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	65.350	82.8	3,790	Chem Translator of 0.789 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	75.4	Chem Translator of 0.85 applied
Total Nickel	0	0		0	472.558	474	21,679	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	3.277	3.86	177	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	2,976	
Total Zinc	0	0		0	118.264	121	5,536	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 24.934 PMF: 1 Analysis Hardness (mg/l): 100.85 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
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	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	12,923	
Total Arsenic	0	0		0	150	150	8,811	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	240,829	
Total Boron	0	0		0	1,600	1,600	93,982	
Total Cadmium	0	0		0	0.247	0.27	16.0	Chem Translator of 0.909 applied
Hexavalent Chromium	0	0		0	10	10.4	611	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	1,116	
Total Copper	0	0		0	9.021	9.4	552	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	88,108	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	2.540	3.22	189	Chem Translator of 0.79 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	53.2	Chem Translator of 0.85 applied
Total Nickel	0	0		0	52.381	52.5	3,086	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	293	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	764	
Total Zinc	0	0		0	118.991	121	7,089	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 24.934 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	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	329	
Total Arsenic	0	0		0	10	10.0	587	
Total Barium	0	0		0	2,400	2,400	140,973	
Total Boron	0	0		0	3,100	3,100	182,091	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	

Dissolved Iron	0	0		0	300	300	17,622	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	58,739	
Total Mercury	0	0		0	0.050	0.05	2.94	
Total Nickel	0	0		0	610	610	35,831	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	14.1	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 8.870 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	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***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 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	Discharge Conc < TQL
Total Aluminum	22,009	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	140,973	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	93,982	µg/L	Discharge Conc < TQL
Total Cadmium	16.0	µg/L	Discharge Conc < TQL
Hexavalent Chromium	478	µg/L	Discharge Conc < TQL
Total Cobalt	1,116	µg/L	Discharge Conc ≤ 10% WQBEL
Total Copper	415	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	17,622	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	88,108	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	189	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	58,739	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	2.94	µg/L	Discharge Conc < TQL
Total Nickel	3,086	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	293	µg/L	Discharge Conc < TQL
Total Silver	113	µg/L	Discharge Conc ≤ 10% WQBEL
Total Thallium	14.1	µg/L	Discharge Conc < TQL
Total Zinc	3,549	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS