

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**  
**MISSOURI CLEAN WATER COMMISSION**



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law (Chapter 644 RSMo, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0138061

Owner: Continental Coal, Inc.  
Address: 10801 Mastin, Suite 920, Overland Park, KS 66210

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Foster South Mine  
Facility Address: Route 1, Hume MO 64752

Legal Description: Sec. 18, Sec 19, T39N, R32W; Sec. 13 & 24, T39N, R33W; Bates County  
UTM Coordinates: See following page(s)

Receiving Stream: See following page(s)  
First Classified Stream and ID: See following page(s)  
USGS Basin & Sub-watershed No.: See following page(s)


authorizes activities pursuant to the terms and conditions of this permit in accordance with the Missouri Clean Water Law and/or the National Pollutant Discharge Elimination System; it does not apply to other regulated activities.

**FACILITY DESCRIPTION**

SIC #1221; NAICS #212114. Historical surface bituminous coal mining facility. This facility started mining in 2016 and completed mining in September 2022. Bond is continued therefore a permit continues to be required until all remediation activities are completed. This permit authorizes the discharge of post mining activities and stormwater.

March 1, 2024  
Effective Date

February 28, 2029  
Expiration Date

  
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John Hoke, Director, Water Protection Program

## **FACILITY DESCRIPTION (CONTINUED)**

### OUTFALL #002

UTM Coordinates: X= 370193, Y= 4224349  
Receiving Stream: Tributary to New Home Creek (C) WBID #5052  
First Classified Stream and ID: New Home Creek (C) (3960)  
USGS Basin & Sub-watershed No.: 10290102-0603  
Max Flow: 0.71 MGD

### OUTFALL #003

UTM Coordinates: X= 370136, Y= 4223738  
Receiving Stream: Tributary to New Home Creek  
First Classified Stream and ID: Tributary to New Home Creek (C) WBID #5052  
USGS Basin & Sub-watershed No.: 10290102-0603  
Max Flow: 0.64 MGD

### OUTFALL #005

UTM Coordinates: X= 369057, Y= 4223543  
Receiving Stream: Tributary to Tributary to New Home Creek  
First Classified Stream and ID: Tributary to New Home Creek (C) WBID #5052  
USGS Basin & Sub-watershed No.: 10290102-0603  
Max Flow: 0.97 MGD

### OUTFALL #006

UTM Coordinates: X= 368302, Y= 4223768  
Receiving Stream: Tributary to Gillum Creek  
First Classified Stream and ID: Gillum Creek (C) (1307)  
USGS Basin & Sub-watershed No.: 10290102-0602  
Max Flow: 3.23 MGD

### OUTFALL #007

UTM Coordinates: X= 369546, Y= 4224862  
Receiving Stream: Tributary to Tributary to New Home Creek  
First Classified Stream and ID: Tributary to New Home Creek (C) WBID #5052  
USGS Basin & Sub-watershed No.: 10290102-0603  
Max Flow: 3.88 MGD

### OUTFALL #008

UTM Coordinates: X= 369580, Y= 4225199  
Receiving Stream: Tributary to Tributary to Polk Branch  
First Classified Stream and ID: Tributary to Polk Branch (C) WBID #5052  
USGS Basin & Sub-watershed No.: 10290102-0603  
Max Flow: 1.29 MGD

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALLS #002, #003, #005, #006, #007, #008 <i>stormwater and post mining areas</i>	TABLE A-1 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					
The facility is authorized to discharge from outfall(s) as specified. The final effluent limitations shall become effective on <b>March 1, 2024</b> and remain in effect until expiration of the permit. Discharges shall be controlled, limited, and monitored by the facility as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH- MARKS	MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*	*	-	once/quarter ◇	24 Hr. Est.
Precipitation	inches	*	*	-	once/quarter ◇	measured
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	*	*	-	once/quarter ◇	grab
pH †	SU	6.0 to 9.0	6.0 to 9.0	-	once/quarter ◇	grab
Settleable Solids	mL/L/hr	0.5	*	-	once/quarter ◇	grab
Total Suspended Solids	mg/L	**	*	70	once/quarter ◇	grab
METALS						
Aluminum, Total Recoverable	µg/L	*	*	-	once/quarter ◇	grab
Iron, Total Recoverable	µg/L	**	*	7000	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>JULY 28, 2024</u> .						

\* Monitoring and reporting requirement only

\*\* Monitoring and reporting requirement with benchmark. See Special Conditions for additional requirements.

† pH: the facility will report the minimum and maximum values; pH is not to be averaged.

◇ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	QUARTERLY EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

## B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014, and hereby incorporated as though fully set forth herein.

## C. SPECIAL CONDITIONS

- This facility shall operate in accordance with the Department's Land Reclamation rules and regulations to protect water quality. The facility shall re-vegetate (to at least 70%) all operational areas within one year of the effective date of this permit.
- This facility is not authorized to accept, deposit, bury, or inject coal combustion residuals (CCR) under this permit.
- This permit does not authorize the discharge of acid mine drainage or ferruginous mine drainage.
- Definition: Post-Mining Areas: A reclamation area or the underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release. This shall be sampled according to

Table A-1 of the permit. Missouri Department of Natural Resources Land Reclamation Program requirements compel vegetation be established 180 days post mining.

5. Spills, Overflows, and Other Unauthorized Discharges.
  - (a) Any spill, overflow, or other discharge(s) not specifically authorized are unauthorized discharges.
  - (b) If an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.
6. Electronic Discharge Monitoring Report (eDMR) Submission System. The NPDES Electronic Reporting Rule, 40 CFR Part 127, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data for the NPDES program. The eDMR system is currently the only Department-approved reporting method for this permit unless specified elsewhere in this permit, or a waiver is granted by the Department. The facility must register in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. All reports uploaded into the system shall be reasonably named so they are easily identifiable, such as "WET Test Chronic Outfall 002 Jan 2023", or "Outfall004-DailyData-Mar2025".
7. Stormwater Pollution Prevention Plan (SWPPP).

The facility's SIC code or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) and hence shall implement a Stormwater Pollution Prevention Plan (SWPPP) which must be prepared and implemented upon permit effective date. The SWPPP must be kept on-site and not sent to the Department unless specifically requested. The SWPPP must be reviewed and updated annually or if site conditions affecting stormwater change. The facility shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002 March 2021) [https://www.epa.gov/sites/production/files/2021-03/documents/swppp\\_guide\\_industrial\\_2021\\_030121.pdf](https://www.epa.gov/sites/production/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf) The purpose of the SWPPP and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was ineffective at providing the necessary protections for which it was designed. Corrective action describes the steps the facility took to eliminate the deficiency.

The SWPPP must include:

  - (a) A listing of specific contaminants and their control measures (BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.
  - (b) A map with all outfalls and structural BMPs marked.
  - (c) If within the boundaries of a regulated Municipal Separate Storm Sewer System (MS4s), list the name of the regulated MS4.
  - (d) A schedule for at least once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, and observations and evaluations of BMP effectiveness. A BMP is considered to be disrupted if it is rendered ineffective as a result of damage or improper maintenance. Categorization of a deficiency is reliant on the length of time required to correct each disrupted BMP. Corrective action after discovering a disrupted BMP must be taken as soon as possible. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
    - (1) Operational deficiencies are disrupted BMPs which the facility is able to and must correct within 7 calendar days.
    - (2) Minor structural deficiencies are disrupted BMPs which the facility is able to and must correct within 14 calendar days.
    - (3) Major structural deficiencies (deficiencies projected to take longer than 14 days to correct) are disrupted BMPs which must be reported as an uploaded attachment through the eDMR system with the DMRs. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including proposed timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. If required by the Department, the facility shall work with the regional office to determine the best course of action. The facility may consider temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
    - (4) All actions taken to correct the deficiencies shall be included with the written report, including photographs, and kept with the SWPPP. Additionally, corrective action of major structural deficiencies shall be reported as an uploaded attachment through the eDMR system with the DMRs.
    - (5) BMP failure causing discharge through an unregistered outfall is considered an illicit discharge and must be reported in accordance with Standard Conditions Part I.
    - (6) Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to Department personnel upon request. Electronic versions of the documents and photographs are acceptable.
  - (e) A provision for designating a responsible individual for environmental matters and a provision for providing training to all personnel involved in housekeeping, material handling (including but not limited to loading and unloading), storage, and

staging of all operational, maintenance, storage, and cleaning areas. Proof of training shall be submitted upon request by the Department.

8. Site-wide minimum Best Management Practices (BMPs)

At a minimum, the facility shall adhere to the following:

- (a) Provide good housekeeping practices on the site to keep trash from entry into waters of the state. Dumpsters must remain closed when not in use.
- (b) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, to prevent the contamination of stormwater from these substances.
- (c) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
- (d) Store all paint, solvents, petroleum products, petroleum waste products, and storage containers (such as drums, cans, or cartons) so these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater. Spill records shall be retained on-site or readily accessible electronically.
- (e) The facility shall not discharge substances resulting from an on-site spill.
- (f) Provide sediment and erosion control sufficient to prevent or minimize sediment loss off of the property, and to protect embankments from erosion.
- (g) Wash water for vehicles, building(s), or pavement must be handled in a no-discharge manner (infiltration, hauled off-site, etc.). Describe the no-discharge method used and include all pertinent information (quantity/frequency, soap use, effluent destination, BMPs, etc.) in the application for renewal. If wash water is not produced, note this instead.
- (h) Salt and sand shall be stored in a manner minimizing mobilization in stormwater (for example: under roof, in covered container, under tarp, etc.).

9. Reporting Non-Detects

- (a) Compliance analysis conducted by the facility or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, §A, No. 4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply; method detection limit (MDL) and laboratory-established reporting limit (RL) are used interchangeably in this permit. The reporting limits established by the laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter's future limit after an SOC) in the permit unless the permit provides for an ML.
- (b) The facility shall not report a sample result as "non-detect" without also reporting the MDL. Reporting "non-detect" without also including the MDL will be considered failure to report, which is a violation of this permit.
- (c) For the daily maximum, the facility shall report the highest value; if the highest value was a non-detect, use the less than "<" symbol and the laboratory's highest method detection limit (MDL) or the highest reporting limit (RL); whichever is higher (e.g. <6).
- (d) When calculating monthly averages, zero shall be used in place of any value(s) not detected. Where all data used in the average are below the MDL or RL, the highest MDL or RL shall be reported as "<#" for the average as indicated in item (c).

10. Failure to pay fees associated with this permit is a violation of the Missouri Clean Water Law (644.055 RSMo).

11. All outfalls and permitted features must be clearly marked in the field.

12. Report no discharge when a discharge does not occur during the report period. It is a violation of this permit to report no-discharge when a discharge has occurred.

13. This permit does not allow stream channel or wetland alterations unless approved by Clean Water Act §404 permitting authorities.

14. This permit does not authorize in-stream treatment, the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course.

15. All records required by this permit may be maintained electronically. These records can be maintained in a searchable format.

16. Changes in Discharges of Toxic Pollutant.

In addition to the reporting requirements under 40 CFR 122.41, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director per 40 CFR 122.42(a)(1) and (2) as soon as recognizing:

- (a) An activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
    - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
    - (4) One milligram per liter (1 mg/L) for antimony;
    - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
    - (6) The notification level established by the Department in accordance with 40 CFR 122.44(f).
  - (b) Any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
    - (1) Five hundred micrograms per liter (500 µg/L);
    - (2) One milligram per liter (1 mg/L) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
    - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
  - (c) Authorization of new or expanded pollutant discharges may be required under a permit modification or renewal, and may require an antidegradation review.
17. This permit does not authorize the facility to accept, treat, or discharge wastewater from other sources unless explicitly authorized herein. If the facility would like to accept, treat, or discharge wastewater from another activity or facility, the permit must be modified to include external wastewater pollutant sources in the permit.
18. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with Sections 301, 302, 306, 307, and 403 of the federal Clean Water Act, except for standards imposed under Section 307 for toxic pollutants injurious to human health, and with equivalent provisions of the Missouri Clean Water Law, in accordance with Section 644.051.16 RSMo and CWA §402(k). This permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under CWA §§301(b)(2)(C) and (D), §304(b)(2), and §307(a)(2), if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit, or controls any pollutant not already limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause, including determination new pollutants found in the discharge not identified in the application for the new or revised permit. The filing of a request by the facility for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.
19. Any discharges (or qualified activities such as land application) not expressly authorized in this permit, and not clearly disclosed in the permit application, cannot become authorized or shielded from liability under CWA section 402(k) or Section 644.051.16, RSMo, by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including any other permit applications, funding applications, the SWPPP, discharge monitoring reporting, or during an inspection. Submit a permit modification application, and an antidegradation determination if appropriate, to request authorization of new or expanded discharges.
20. Renewal Application Requirements.
- (a) This facility shall submit an appropriate and complete application to the Department no less than 180 days prior to the expiration date listed on page 1 of the permit.
  - (b) Application materials shall include complete Form A, and Form C. If the form names have changed, the facility must ensure they are submitting the correct forms as required by regulation.
  - (c) Sufficiently sensitive analytical methods must be used. A sufficiently sensitive method is one that can effectively describe the presence or absence of a pollutant at or below that pollutant’s permit limit or water quality standard.
  - (d) The facility may use the electronic submission system to submit the application to the Program, if available.

#### D. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal shall be directed to:

Administrative Hearing Commission; U.S. Post Office Building, Third Floor  
131 West High Street, P.O. Box 1557; Jefferson City, MO 65102-1557  
Phone: 573-751-2422; Fax: 573-751-5018; Website: <https://ahc.mo.gov>

**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL OF**  
**MO-0138061**  
**FOSTER SOUTH MINE**

The Federal Water Pollution Control Act (Clean Water Act (CWA) §402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (§301 of the Clean Water Act). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal Clean Water Act and Missouri Clean Water Law 644 RSMo as amended). MSOPs may also cover underground injection, non-discharging facilities, and land application facilities. Permits are issued for a period of five (5) years unless otherwise specified for less.

Per 40 CFR Part 124.8(a) and 10 CSR 20-6.020(1)(A)2 a factsheet shall be prepared to give pertinent information regarding applicable regulations, rationale for the development of limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or permit) listed below. A factsheet is not an enforceable part of a permit.

**PART I. FACILITY INFORMATION**

Facility Type: Industrial; Categorical; Minor  
SIC Code(s): 1221  
NAICS Code(s): 212114  
Application Date: 02/08/2023  
Expiration Date: 06/30/2023

**FACILITY DESCRIPTION**

Historic surface coal mine; all outfalls are now post mining status. Bond has not been released therefore the permit is continued to be required.

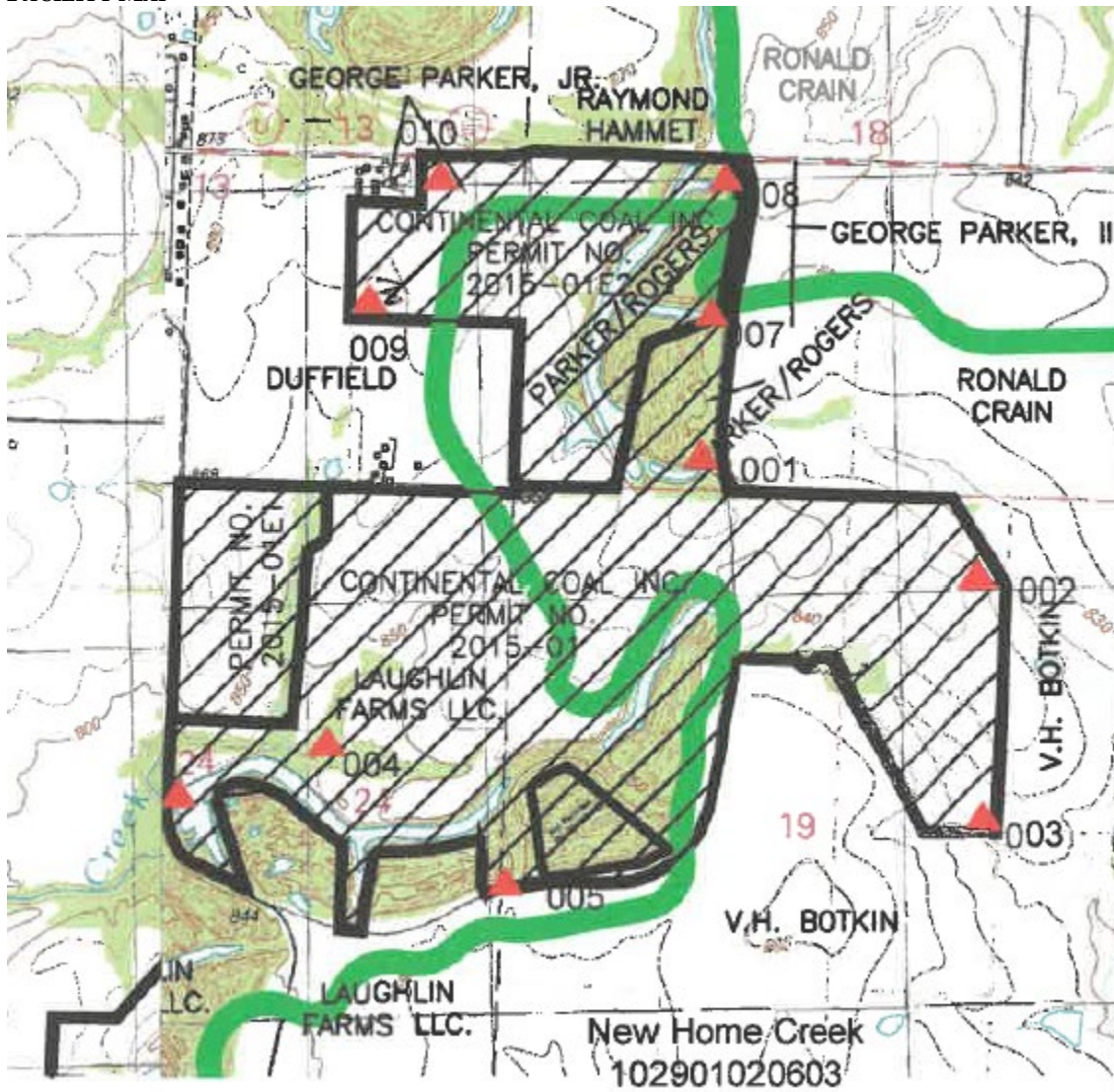
Items listed in the facility (or outfall) description, applicable to the operation, maintenance, control, and resultant effluent quality are required to be enumerated in the facility description. The facility description ensures the facility continues to operate the wastewater (or stormwater) controls listed in the permit to preserve and maintain the effluent quality pursuant to 40 CFR 122.21(e). Any planned changes to the facility (which changes the facility or outfall description) are required to be reported to the Department pursuant to 40 CFR 122.41(l)(1)(ii). If the facility does not or cannot use all of their disclosed treatment devices, this is considered bypassing pursuant to 40 CFR 122.41(m) in the case of wastewater, and BMP disruption in the case of stormwater.

**PERMITTED FEATURES TABLE**

OUTFALL	AVERAGE FLOW	MAX FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#002	0.025 MGD	0.71 MGD	settling, BMPs	post-mining area, industrial stormwater
#003	0.062 MGD	0.64 MGD	settling, BMPs	post mining area, industrial stormwater
#005	0.032 MGD	0.97 MGD	settling, BMPs	post-mining area, industrial stormwater
#006	0.22 MGD	3.23 MGD	settling, BMPs	post mining area, industrial stormwater
#007	0.20 MGD	3.88 MGD	settling, BMPs	post-mining area, industrial stormwater
#008	0.056 MGD	1.29 MGD	settling, BMPs	post mining area, industrial stormwater



## FACILITY MAP



## FACILITY PERFORMANCE HISTORY & COMMENTS

The electronic discharge monitoring reports were reviewed for the last five years; there is nothing of note. There is no inspection on file for this site.

## CONTINUING AUTHORITY

Pursuant to 10 CSR 20-6.010(2)(A) and (E), the Department has received the appropriate continuing authority authorized signature from the facility. The Missouri Secretary of State continuing authority charter number for this facility is 00412178; this number was verified to be associated with the facility and precisely matches the continuing authority reported by the facility. Pursuant to 10 CSR 20-6.010(2)(B)4, this facility is a Level 4 Authority; because this is a stormwater only site, no higher authority waiver is necessary.

## OTHER ENVIRONMENTAL PERMITS

In accordance with 40 CFR 122.21(f)(6), the Department evaluated other environmental permits currently held by this facility. This facility has an air permit: 092017-002, and a Land Reclamation Program permit: 2015-01E2.



**PART II. RECEIVING WATERBODY INFORMATION****RECEIVING WATERBODY TABLE:**

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC
#002	Presumed Use Stream, locally known as tributary to New Home Creek	C	5052*	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.0 mi	10290102-0603 New Home Creek
#003	Presumed Use Stream, locally known as tributary to New Home Creek	C	5052*	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.2 mi	
#005	Presumed Use Stream, locally known as New Home Creek	C	5052*	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.9 mi	
#006	Gillum Creek	C	1307	HHP, IRR, LWW, SCR, WWH (AQL)	1.0 mi	10290102-0602 Walnut Creek
#007	Presumed Use Stream, locally known as tributary to New Home Creek	C	5052*	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.1	10290102-0603 New Home Creek
#008	Presumed Use Stream	C	5052*	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.1	10290102-0604 Parker Branch – Marais Des Cygnes River

\* The previous permit identified WBID# 3960 and 100K Extent-Remaining Stream; these changes are due to a new numbering system and new naming convention for streams and lakes based on the HUC8 watershed number, the actual receiving stream has not changed.

Classes are representations of hydrologic flow volume or lake basin size per 10 CSR 20-7.031(1)(E).

Designated uses are described in 10 CSR 20-7.031(1)(F).

WBID: Waterbody Identification Number per 10 CSR 20-7.031(1)(Q) and (S)

HUC: Hydrologic Unit Code <https://water.usgs.gov/GIS/huc.html>

Water Quality Standards Search [https://apps5.mo.gov/mocwis\\_public/waterQualityStandardsSearch.do](https://apps5.mo.gov/mocwis_public/waterQualityStandardsSearch.do)

**EXISTING WATER QUALITY & IMPAIRMENTS**

The receiving waterbody(s) segment(s), upstream, and downstream confluence water quality was reviewed. The USGS

<https://waterdata.usgs.gov/nwis/sw> or the Department's quality data database was reviewed.

[https://apps5.mo.gov/mocwis\\_public/wqa/waterbodySearch.do](https://apps5.mo.gov/mocwis_public/wqa/waterbodySearch.do) and <https://apps5.mo.gov/wqa/> Impaired waterbodies which may be impacted by discharges from this facility were determined. Impairments include waterbodies on the 305(b) or 303(d) list and those waterbodies or watersheds under a TMDL. <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/tmdls> Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters> Water quality standards protect beneficial uses of water provided in 10 CSR 20-7.031. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards.

✓ There are no upstream or downstream impairments near this facility.

### **PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS**

#### **ANTIBACKSLIDING**

Federal antibacksliding requirements per CWA §402(o) and 40 CFR § 122.44(l) [https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#p-122.44\(l\)](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#p-122.44(l)) generally prohibit a reissued permit from containing effluent limitations that are less stringent than the previous permit, with some exceptions. All renewed permits are analyzed for evidence of backsliding. There are several express statutory exceptions to the antibacksliding requirements, located in CWA § 402(o)(2) and 40 CFR 122.44(l). Parameters are discussed individually in Part IV of the fact sheet.

#### **ANTIDEGRADATION REVIEW**

Discharges with new, altered, or expanding flows, the Department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. See <https://dnr.mo.gov/document-search/antidegradation-implementation-procedure>. The prescribed minimum BMPs required in the permit for stormwater are developed by the Department pursuant to 10 CSR 20-7.031(3), and BMP use for stormwater discharges is authorized under 40 CFR 122.44(k)(2).

- ✓ Not applicable; the facility has not submitted information proposing new or expanded discharge; no further degradation proposed therefore no further review necessary.

#### **BEST MANAGEMENT PRACTICES (BMPs)**

Minimum site-wide best management practices (BMPs) are established in this permit to ensure all facilities are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14) or 10 CSR 20-6.200(2), these best management practices are not specifically included only for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria per 10 CSR 20-7.031(4). Statutes are applicable to all permitted facilities in the state, therefore pollutants cannot be released unless in accordance with 644.011 and 644.016 (17) RSMo.

#### **CHANGES IN DISCHARGES OF TOXIC POLLUTANT**

This special condition reiterates the federal rules found in 40 CFR 122.44(f) for technology treatments and 122.42(a)(1) for all other toxic substances. In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as any pollutant listed as toxic under section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA." Section 307 of the clean water act then refers to those parameters listed in 40 CFR 401.15 and any other toxic parameter the Department determines is applicable for reporting under these rules in the permit. The facility must also consider any other toxic pollutant in the discharge as reportable under this condition and must report all increases to the Department as soon as discovered in the effluent. The Department may open the permit to implement any required effluent limits pursuant to CWA §402(k) where sufficient data was not supplied within the application but was supplied at a later date by either the facility or other resource determined to be representative of the discharge, such as sampling by Department personnel.

#### **COMPLIANCE AND ENFORCEMENT**

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

- ✓ Not applicable; the facility is not currently under Water Protection Program enforcement action.

#### **DISCHARGE MONITORING REPORTING – ELECTRONIC (eDMR) SUBMISSION SYSTEM**

The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by requiring electronic data reporting. To comply with the federal rule, the Department is requiring all facilities to submit discharge monitoring data and reports online. To review historical data, the Department's database has a publically facing search engine, available at [https://apps5.mo.gov/mocwis\\_public/dmrDisclaimer.do](https://apps5.mo.gov/mocwis_public/dmrDisclaimer.do)

Registration and other information regarding MoGEM can be found at <https://dnr.mo.gov/mogem>. Information about the eDMR system can be found at <https://dnr.mo.gov/env/wpp/edmr.htm>. The first user shall register as an Organization Official and the association to the facility must be approved by the Department. To access the eDMR system, use: <https://apps5.mo.gov/mogems/welcome.action> For assistance using the eDMR system, contact [edmr@dnr.mo.gov](mailto:edmr@dnr.mo.gov) or call 855-789-3889 or 573-526-2082. To assist the facility in entering data into the eDMR system, the permit describes limit sets designators in each table in Part A of the permit. Facility personnel will use these identifiers to ensure data entry is being completed appropriately. For example, M for monthly, Q for quarterly, A for annual, and others as identified.

#### **DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS**

Domestic wastewater is defined as wastewater originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, wash water, animal waste, process, or ancillary wastewater.

- ✓ Not applicable; this facility manages domestic wastewater by using chemical toilets.

## EFFLUENT LIMITATIONS

Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. Permits are required to establish the most stringent or most protective limit per 10 CSR 20-7.015(9)(A) and 40 CFR 122.44(b)(1). Effluent limitations derived and established for this permit are based on current operations of the facility. Any flow through the outfall is considered a discharge and must be sampled and reported per permit requirements. Daily maximums and monthly averages are required for continuous discharges per 40 CFR 122.45(d)(1). Weekly limits are not available for non-POTWs.

## FEDERAL EFFLUENT LIMITATION GUIDELINES

Effluent Limitation Guidelines (ELGs) are found at 40 CFR 400-499. <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N> These are limitations established by the EPA based on the type of activities a facility is conducting. Most ELGs are for process wastewater and some address stormwater. Effluent guidelines are not always established for every pollutant present in a point source discharge. In many instances, EPA promulgates effluent guidelines for an indicator pollutant. Industrial facilities complying with the effluent guidelines for the indicator pollutant will also control other pollutants (e.g. pollutants with a similar chemical structure). For example, EPA may choose to regulate only one of several metals present in the effluent from an industrial category, and compliance with the effluent guidelines will ensure similar metals present in the discharge are adequately controlled. All are technology based limitations which must be met by the applicable facility at all times. If Reasonable Potential is established for any particular parameter, and water-quality based effluent limits are more protective of the receiving water's quality, the WQBEL will be used as the limiting factor in accordance with 40 CFR 122.44(d) and 10 CSR 20-7.015(9)(A).

- ✓ This permittee has disclosed they discharge alkaline mine drainage; the mine was newly permitted in 2015 therefore are subject to Subpart D (40 CFR 434.40 through 434.45) including new source performance standards.

## GENERAL CRITERIA CONSIDERATIONS

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, permit decisions were made by completing a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). See Part III REASONABLE POTENTIAL for more information. In instances where reasonable potential exists, the permit includes limitations to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, 644.076.1 RSMo, and Part I §D – Administrative Requirements of Standard Conditions included in this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of §§644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission. See Part IV for specific determinations.

## GOOD HOUSEKEEPING PRACTICES

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and employee training. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices is an effective means of ensuring the continued implementation of these measures.

Specific good housekeeping may include:

- ◆ Spill and overflow protection under chemical or fuel connectors to contain spillage at liquid storage tanks
- ◆ Load covers on residue hauling vehicles and ensure gates on trucks are sealed and the truck body is in good condition
- ◆ Containment curbs around loading/unloading areas or tanks
- ◆ Techniques to reduce solids residue which may be tracked on to access roads traveled by residue trucks or residue handling vehicles.
- ◆ Techniques to reduce solid residue on exit roads leading into and out of residue handling areas

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure. For erosion and sediment control, BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities,

soils, cover, materials, or other factors, are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

The SWPPP (if required for this facility) must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures. A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. BMP schedules must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

#### **GROUNDWATER MONITORING**

Groundwater is a water of the state according to 644.016(27) RSMo, is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6), and must be protected accordingly.

✓ This facility is not required to monitor groundwater for the water protection program as there are no sub-surface discharges.

#### **LAND APPLICATION**

Land application, which is surficial dispersion of wastewater or surficial spreading of sludge can be performed by facilities as an alternative to discharging. Authority to regulate these activities is pursuant to 644.026 RSMo. The Department implements requirements for these types of operations pursuant to 10 CSR 20-6.015(4)(A)1 which instructs the Department to develop permit conditions containing limitations, monitoring, reporting, and other requirements to protect soils, crops, surface waters, groundwater, public health, and the environment. Sub-surface dispersion or application of wastewater is typically considered a Class V UIC system; See UNDERGROUND INJECTION CONTROL section below.

✓ Not applicable; this permit does not authorize operation of a surficial land application system to disperse wastewater or sludge.

#### **MODIFICATION REQUESTS**

Facilities have the option to request a permit modification from the Department at any time under RSMo 644.051.9. Requests must be submitted to the Water Protection Program with the appropriate forms and fees paid per 10 CSR 20-6.011. It is recommended facilities contact the program early so the correct forms and fees are submitted, and the modification request can be completed in a timely fashion. Minor modifications, found in 40 CFR 122.63, are processed without the need for a public comment period. Major modifications, those requests not explicitly fitting under 40 CFR 122.63, do require a public notice period. Modifications to permits must be completed when: a new pollutant is found in the discharge; operational or functional changes occur which affect the technology, function, or outcome of treatment; the facility desires alternate numeric benchmarks; or other changes are needed to the permit.

Modifications are not required when utilizing or changing additives in accordance with the publication <https://dnr.mo.gov/document-search/additive-usage-wastewater-treatment-facilities-pub2653/pub2653> nor are required when a temporary change or provisional discharge has been authorized by the regional office. While provisional discharges may be authorized by the regional office, they will not be granted for more than the time necessary for the facility to obtain an official modification from the Water Protection Program. Temporary provisional discharges due to weather events or other unforeseen circumstances may or may not necessitate a permit modification. The facility may ask for a Compliance Assistance Visit (CAV) from the regional office to assist in the decision-making process; CAVs are provided free to the permitted entity.

#### **OPERATOR CERTIFICATION REQUIREMENTS**

Operators or supervisors of operations at regulated domestic wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9 and any other applicable state law or regulation.

✓ Not applicable; this facility is not owned or operated by a municipality, public sewer district, county, public water supply district, or private sewer company regulated by the Public Service Commission, or operated by a state or federal agency.

#### **PERMIT SHIELD**

The permit shield provision of the Clean Water Act (Section 402(k)) and Missouri Clean Water Law (644.051.16 RSMo) provides that when a permit holder is in compliance with its NPDES permit or MSOP, it is effectively in compliance with certain sections of the Clean Water Act, and equivalent sections of the Missouri Clean Water Law. In general, the permit shield is a legal defense against certain enforcement actions, but is only available when the facility is in compliance with its permit and satisfies other specific conditions, including having completely disclosed all discharges and all facility processes and activities to the Department at time of application. It is the facility's responsibility to ensure that all potential pollutants, waste streams, discharges, and activities, including wastewater land application, storage, and treatment areas, are all fully disclosed to the Department at the time of application or during the draft permit review process. Previous permit applications are not necessarily evaluated or considered during permit renewal actions. All relevant disclosures must be provided with each permit application, including renewal applications, even when the same information was previously disclosed in a past permit application. Subsequent requests for authorization to discharge additional



pollutants, expanded or newly disclosed flows, or for authorization for previously unpermitted and undisclosed activities or discharges, will likely require an official permit modification, including another public participation process.

### REASONABLE POTENTIAL (RP)

Regulations per 10 CSR 20-7.015(9)(A)2 and 40 CFR 122.44(d)(1)(i) require effluent limitations for all pollutants which are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit allowance in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit allowance in mixing zones. A reasonable potential analysis (RPA) is a numeric RP decision calculated using effluent data provided by the facility for parameters that have a numeric Water Quality Standard (WQS). If any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS or derived WQBEL, the permit must contain a WQBEL for the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A). The RPA is performed using the *Technical Support Document for Water Quality Based Toxics Control (TSD)* methods (EPA/505/2-90-001) for continuous discharges. See additional considerations under Part II WATERBODY MIXING CONSIDERATIONS and Part III WASTELOAD ALLOCATIONS. Wasteload allocations are determined utilizing the same equations and statistical methodology. Absent sufficient effluent data, WQBELs are derived without consideration of effluent variability and is assumed to be present unless found to be absent to meet the requirements of antidegradation review found in 10 CSR 20-7.031(3) and reporting of toxic substances pursuant to 40 CFR 122.44(f). The Department's permit writer's manual (<https://dnr.mo.gov/water/business-industry-other-entities/technical-assistance-guidance/wastewater-permit-writers-manual>), the EPA's permit writer's manual (<https://www.epa.gov/npdes/npdes-permit-writers-manual>), program policies, and best professional judgment guide each decision. Each parameter in each outfall is carefully considered; and all applicable information regarding: technology based effluent limitations, effluent limitation guidelines, water quality standards, inspection reports, stream water quality information, stream flows, uses assigned to each waterbody, and all applicable site specific information and data gathered by the facility through discharge monitoring reports and renewal (or new) application sampling.

Reasonable potential determinations (RPD) are based on physical conditions of the site as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD using best professional judgement. An RPD consists of evaluating visual observations for compliance with narrative criteria, non-numeric information, or small amounts of numerical data (such as 1 data point supplied in the application). Narrative criteria with RP typically translate to a numeric WQBEL, so a parameter's establishment being based on narrative criteria does not necessarily make the decision an RPD vs RP—how the data is collected does, however. For example, a facility with orange discharge can have RP for narrative criteria like color, but a numeric iron limit is established to account for the violation of narrative criteria based on effluent data submitted by the facility. When insufficient data is received to make a determination on RP based on numeric effluent data, the RPD decisions are based on best professional judgment considering the type of effluent discharged, the current operational controls in place, and historical overall management of the site. In the case of iron causing excursions of narrative criteria for color, if a facility has not had iron monitoring in a previous permit, adding iron monitoring would be an RPD, since numeric data isn't being used in the determination, but observable, site-specific conditions are.

When the facility is performing surficial or subsurface land application, the volume of water, frequency of application, type of vegetation, soil type, land slopes, and general overall operating conditions are considered. 10 CSR 20-8 are regulations for the minimum operating conditions for land application; these regulations cannot be excused even if there is no RP. RP is reserved for discharging outfalls given that these outfalls are the only ones which water quality standards apply to, but the process is similar as the site conditions are compared to regulations, soil sampling, pollutant profile, and other site specific conditions. In the case of non-discharging outfalls, an RPD is instead used to determine monitoring requirements.

The TSD RPA method cannot be performed on stormwater as the flow is intermittent and highly variable. A stormwater RPD consists of reviewing application data and discharge monitoring data and comparing those data to narrative or numeric water quality criteria. For stormwater outfalls, considerations are required per 10 CSR 20-6.200(6)(B)2: A. application and other information supplied by the facility; B. effluent guidelines; C. best professional judgment; D. water quality; and E. BMPs.

RPDs are also performed for WET testing in wastewater. While no WET regulations specific to industrial wastewater exist, 40 CFR 122.21(j)(5) implies the following can be considered: 1) the variability of the pollutants; 2) the ratio of wastewater flow to receiving stream flow; and 3) current technology employed to remove toxic pollutants. Generally, sufficient data does not exist to mathematically determine RPA for WET, but instead compares the data for other toxic parameters in the wastewater with the necessity to implement WET testing with either monitoring or limits. When toxic parameters exhibit RP, WET testing is generally included in the permit as an RPD. However, if all toxic parameters are controlled via limitations or have exhibited no toxicity in the past, then WET testing may be waived. Only in instances where the wastewater is well characterized can WET testing be waived.

WET testing is typically not implemented for stormwater. Stormwater discharges do not adhere to the same principles of wastewater RPAs because stormwater discharges are not continuous, and at the time of precipitation discharge the receiving stream is also no longer at base (0) flow, meaning that using RP to develop WET testing requirements for stormwater is unrepresentative. The Department works with the Missouri Department of Conservation and has understanding of streams already exhibiting toxicity, even

without the influence of industrial wastewater or stormwater. Facilities discharging to streams with historical toxicity are required to use laboratory water for dilution, instead of water from the receiving stream when performing WET tests.

TSD methods encountered may be § 3.3.2, § 5.7.3 for metals, and § 5.4.1 for chloride. Part IV EFFLUENT LIMIT DETERMINATIONS provides specific decisions related to this permit. In general, removal of a WQBEL if there is no RP is not considered backsliding, see ANTIBACKSLIDING for additional information.

- ✓ No statistical RPAs were performed for this permit.
- ✓ Chloride and Sulfate monitoring is removed; the highest data supplied was 197.9 mg/L for the combined data; there is no RP for this parameter nor is there reason to retain monitoring as the data is much less than half of the 1000 mg/L standard.
- ✓ The previous permit indicated “There Shall Be No Discharge of Floating Solids or Visible Foam in Other Than Trace Amounts” under each table. The statement was not evaluated against actual site conditions therefore, this general criteria was re-assessed. It was determined that this facility does not discharge solids or foam in amounts which would indicate reasonable potential, therefore the statement was removed. Removal of these narrative criteria is not subject to antibacksliding provisions as there is no RP.

#### **REGIONAL OFFICES (ROS)**

Regional Offices will provide a compliance assistance visit at a facility’s request; a regional map with links to phone numbers can be found here: <https://dnr.mo.gov/about-us/division-environmental-quality/regional-office>. Or use <https://dnr.mo.gov/compliance-assistance-enforcement> to request assistance from the Region online.

#### **RENEWAL REQUIREMENTS**

The renewal special condition permit requirement is designed to guide the facility to prepare and include all relevant and applicable information in accordance with 10 CSR 20-6.010(7)(A)-(C), and if applicable, federal regulations. The special condition may not include all requirements and requests for additional information may be made at the time of permit renewal under 644.051.13(5) RSMo and 40 CFR 122.21(h). Prior to submittal, the facility must review the entire submittal to confirm all required information and data is provided; it is the facility’s responsibility to discern if additional information is required. Failure to fully disclose applicable information with the application or application addendums may result in a permit revocation per 10 CSR 20-6.010(8)(A) and may result in the forfeiture of permit shield protection authorized in 644.051.16 RSMo. Forms are located at:

<https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater>

- ✓ This facility shall submit an appropriate and complete application to the Department no less than 180 days prior to the expiration date listed on page 1 of the permit.
- ✓ The facility may email [cleanwaterpermits@dnr.mo.gov](mailto:cleanwaterpermits@dnr.mo.gov) to submit the application to the Program. A paper copy is not necessary if submitted via email. For larger applications, a drop-box type service may also be used.
- ✓ Application materials shall include complete Form A, and Form C. If the form name has changed, then the facility should ensure they are submitting the correct forms as required by regulation.

#### **SAMPLING FREQUENCY JUSTIFICATION**

Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges, such as wastewater discharges, shall be permitted with daily maximum and monthly average limits. Minimum sampling frequency for all parameters is annually per 40 CFR 122.44(i)(2).

- ✓ Reporting of precipitation was removed from the permit. The information is readily available online, therefore reporting this information is not required.

#### **SAMPLING TYPE JUSTIFICATION**

Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent will consider implementing composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others. For further information on sampling and testing methods see 10 CSR 20-7.015(9)(D)2.

#### **SCHEDULE OF COMPLIANCE (SOC)**

A schedule of compliance is time allowed to meet future more stringent limitations.

- ✓ Not applicable; this permit does not contain a SOC.

#### **SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING**

Per 260.505 RSMo, any emergency involving a hazardous substance must be reported to the Department’s 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest possible moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I.

<https://revisor.mo.gov/main/OneSection.aspx?section=260.500&bid=13989&hl=>



Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the Department's 24 hour Environmental Emergency Response spill line at 573-634-2436.

Certain industrial facilities are subject to the self-implementing regulations for Oil Pollution Prevention in 40 CFR 112, and are required to initiate and follow Spill Prevention, Control, and Countermeasure (SPCC) Plans. This permit, as issued, is not intended to be a replacement for any SPCC plan, nor can this permit's conditions be automatically relaxed based on the SPCC plan if the permit is more stringent than the plan.

#### **STANDARD CONDITIONS**

The standard conditions Part I attached to this permit incorporate all sections of 10 CSR 20-6.010(8) and 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions must be reviewed by the facility to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act.

#### **STORMWATER PERMITTING: LIMITATIONS AND BENCHMARKS**

Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater-only discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) §3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater-only outfalls will generally only contain a maximum daily limit (MDL), a benchmark, or a monitoring requirement as dictated by site specific conditions, the BMPs in place, the BMPs proposed, past performance of the facility, and the receiving water's current quality.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute Water Quality Standards (WQSs) are based on one hour of exposure, and must be protected at all times. Therefore, industrial stormwater facilities with toxic contaminants present in the stormwater may have the potential to cause a violation of acute WQSs if toxic contaminants occur in sufficient amounts. In this instance, the permit may apply daily maximum limitations.

Conversely, it is unlikely for rainfall to cause a discharge for four continuous days from a facility; if this does occur however, the receiving stream will also likely sustain a significant amount of flow providing dilution. Most chronic WQSs are based on a four-day exposure with some exceptions. Under this scenario, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

A standard mass-balance equation cannot be calculated for stormwater because stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day or storm event without real-time ad-hoc monitoring. The amount of stormwater discharged from the facility will vary based on current and previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on climatic conditions, size of watershed, area of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability may increase the stream flow dramatically over a short period of time (flash).

Numeric benchmark values are based on site specific requirements taking in to account a number of factors but cannot be applied to any process water discharges. First, the technology in place at the site to control pollutant discharges in stormwater is evaluated. Other permits are also reviewed for similar activities. A review of the guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP) may also occur. Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard may also be used. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States. If a facility has not disclosed BMPs applicable to the pollutants for the site, the facility may not be eligible for benchmarks.

40 CFR 122.44(b)(1) requires the permit implement the most stringent limitations for each discharge, including industrially exposed stormwater; and 40 CFR 122.44(d)(1)(i) and (iii) requires the permit to include water-quality based effluent limitations (WQBELs) where reasonable potential has been found. However, because of the non-continuous nature of stormwater discharges, staff are unable to perform statistical Reasonable Potential Analysis (RPA) under most stormwater discharge scenarios. Reasonable potential determinations (RPDs; see REASONABLE POTENTIAL above) using best professional judgment are performed.

Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control

measures and to assist the facility in knowing when additional corrective actions may be necessary to comply with the conditions of the permit.

BMP inspections typically occur more frequently than sampling. Sampling frequencies are based on the facility's ability to comply with the benchmarks and the requirements of the permit. Inspections must occur after large rain events and any other time an issue is noted; sampling after a benchmark exceedance may need to occur to show the corrective action taken was meaningful.

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented if there is no RP for water quality excursions.

- ✓ Applicable, this facility has stormwater-only outfalls where benchmarks or limitations were deemed appropriate contaminant measures.

#### **STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

A SWPPP must be prepared by the facility if the SIC code or facility description type is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff.

Pursuant to 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under §304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under §402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. A BMP may take the form of a numeric benchmark. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 and again in 2021 [https://www.epa.gov/sites/default/files/2021-03/documents/swppp\\_guide\\_industrial\\_2021\\_030121.pdf](https://www.epa.gov/sites/default/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf) BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the facility can take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

The facility can review the precipitation frequency maps for development of appropriate BMPs. The online map [https://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html?bkmrk=mo](https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mo) can be targeted to the facility location and is useful when designing detention structures and planning for any structural BMP component. The stormwater map can also be used to determine if the volume of stormwater caused a disrupted BMP; and if the BMP must be re-designed to incorporate additional stormwater flows.

Areas which must be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan shall be formulated to best control the amount of pollutant being released and discharged by each activity or source. This must include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action must be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but may be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation per 10 CSR 20-7.031(3). For further guidance, consult the antidegradation implementation procedure (<https://dnr.mo.gov/document-search/antidegradation-implementation-procedure>).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs which are reasonable and cost effective. The AA evaluation can include practices designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why “no exposure” is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), §II.B.

If parameter-specific numeric benchmark exceedances continue to occur and the facility feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the facility can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which must contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the Department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification, which includes an appropriate fee; the application is found at: <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater>

✓ Applicable; a SWPPP shall be developed and implemented for this facility; see specific requirements in the SPECIAL CONDITIONS section of the permit.

#### **SUFFICIENTLY SENSITIVE ANALYTICAL METHODS**

Please review Standard Conditions Part 1, §A, No. 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 or 40 CFR 136 unless alternates are approved by the Department and incorporated within this permit. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in any given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. The reporting limits established by the chosen laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter’s future limit after an SOC) in the permit unless the permit provides for an ML or if the facility provides a written rationale to the Department. It is the facility’s responsibility to ensure the laboratory has adequate equipment and controls in place to quantify the pollutant. Inflated reporting limits will not be accepted by the Department if the reporting limit is above the parameter value stipulated in the permit. A method is “sufficiently sensitive” when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A facility is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

#### **UNDERGROUND INJECTION CONTROL (UIC)**

Class V wells are sub-surface dispersal or injection of any industrial wastewater; and in certain circumstances, may also be considered a Class V well if it is domestic wastewater. They can also be shallow injection wells like heat pumps and groundwater remediation wells. UIC systems may be described as having “septic tanks” or “lateral lines” in addition to the traditional well type of injection.

✓ Not applicable; the facility has not submitted materials indicating the facility is or will be performing UIC at this site.

#### **WASTELOAD ALLOCATIONS (WLA) FOR LIMITS**

Per 10 CSR 20-2.010; definitions, the WLA is the maximum amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Only streams with available load allocations can be granted discharge allowances. Outfalls afforded mixing allocations provide higher limits because the receiving stream is able to accept more pollutant loading without causing adverse impacts to the environment or aquatic life.

✓ Not applicable, this is a stormwater only permit therefore WLAs were not calculated. See section on stormwater permitting as applying WLAs to stormwater is not normally applicable per TSD §3.1.

#### **WHOLE EFFLUENT TOXICITY (WET) TEST**

A WET test is a quantifiable method to conclusively determine if discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, typically when mixed with receiving stream water. Under the CWA §101(a)(3), requiring WET testing is reasonably appropriate for Missouri State Operating Permits to quantify toxicity. WET testing is also required by 40 CFR 122.44(d)(1) when RP is found. WET testing ensures the provisions in 10 CSR 20-6 and Missouri’s Water Quality Standards in 10 CSR 20-7 are being met; the acute WQS for WET is 0.3 TUa. Under 10 CSR 20-6.010(8)(A)4, the Department may require other terms and conditions it deems necessary to ensure compliance with the CWA and related regulations of the Missouri Clean Water Commission. Missouri Clean Water Law (MCWL) RSMo 644.051.3 requires the Department to set permit conditions complying with the MCWL and CWA. 644.051.4 RSMo specifically references toxicity as an item the Department must

consider in permits (along with water quality-based effluent limits); and RSMo 644.051.5 is the basic authority to require testing conditions. Requirements found in the federal application requirements for POTWs (40 CFR 122.21(j)(5)) do not apply to industrial facilities, therefore WET testing can be implemented on a case by case basis following the factors outlined below. Annual testing is the minimum testing frequency if reasonable potential is found; monitoring requirements promulgated in 40 CFR 122.44(i)(2) state “requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once per year.” To determine reasonable potential, factors considered are: 1) history of toxicity; 2) quantity and quality of substances (either limited or not) in the permit with aquatic life protections assigned; and 3) operational controls on toxic pollutants. See Part III under REASONABLE POTENTIAL for additional information. A facility does not have to be designated as a major facility to receive WET testing; and being a major facility does not automatically require WET testing. Additionally per 40 CFR 122.44(d)(1)(v), limits on whole effluent toxicity are not necessary where the permitting authority demonstrates in the fact sheet, using the procedures in 40 CFR 122.44(d)(1)(ii) of this section, that chemical-specific limits or specified operational controls are sufficient to attain and maintain applicable numeric and narrative water quality standards.

If WET limits are applied to this facility, follow up testing applies. When a facility exceeds the TU established in the permit, three additional follow-up tests are triggered. The follow up test results do not negate the initial testing result. If the facility is within the prescribed TU limit for all three follow up tests, then no further testing is required until the next regularly scheduled tests. If one or more additional tests exceed the TU limit, the facility may consider beginning the Toxicity Identification Evaluation (TIE) and Toxicity Identification Reduction (TRE) processes instead of waiting for three consecutive TU exceedances. The TIE and TRE process can take up to two years, especially when toxicity is variable or transient. We urge facilities to work closely with their WET testing laboratory to follow nationwide guidance for determining causes of toxicity and curative activities to remove toxicity. Additional wastewater controls may be necessary; and while, generally, no Construction Permit (CP) is required for adding treatment at industrial facilities, the facility may check with the Engineering Section to determine a plan of action.

If WET testing failures are from a known toxic parameter, and the facility is working with the Department to alleviate that pollutant’s toxicity in the discharge, please contact the Department prior to conducting follow-up WET testing. Under certain conditions, follow-up testing may be waived when the facility is already working to reduce and eliminate toxicity in the effluent. For the purposes of reporting, the laboratory may supply either the TU value, the LC<sub>50</sub>, or the NOEC. If the laboratory only supplied the LC<sub>50</sub> or the NOEC value, the toxic unit is calculated by 100/LC<sub>50</sub> for acute tests, or 100/NOEC for chronic tests. The TU value is entered in the eDMR system. Reports showing no toxicity are usually entered as <1.

- ✓ Not applicable; WET testing was not implemented in this permit because the facility discharges only stormwater, which is an intermittent discharge therefore any WET test is not representative of actual site conditions; WET tests are run for 48 hours, precipitation discharges are intermittent.

**PART IV. EFFLUENT LIMIT DETERMINATIONS****STORMWATER - INCLUDING POST MINING AREAS WITHOUT UNDERGROUND MINE DRAINAGE – ALL OUTFALLS**

Outfalls subject to this limit set will be determined by the permittee and Land Reclamation Program. Discharges subject to this limit set will consist of less than 10% process wastewater as defined by special condition #4 of the permit.

**EFFLUENT LIMITATIONS TABLE:**

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL								
FLOW	MGD	*	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 Hr. EST
CONVENTIONAL								
COD	mg/L	*	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH†	SU	6.0-9.0	6.0-9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS	mL/L/hr	0.5	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOTAL SUSPENDED SOLIDS	mg/L	**	*	70	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS								
ALUMINUM, TR	µg/L	*	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TR	µg/L	**	*	7000	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB

- \* monitoring and reporting requirement only  
 \*\* monitoring with associated benchmark  
 † report the minimum and maximum pH values; pH is not to be averaged  
 TR total recoverable

**DERIVATION AND DISCUSSION OF LIMITS:****PHYSICAL:****Flow**

Per 40 CFR Part 122.44(i)(1)(ii) the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the facility is unable to obtain effluent flow, then it is the responsibility of the facility to inform the Department, which may require the submittal of an operating permit modification. The facility will report the total maximum daily flow and average in millions of gallons per day (MGD), quarterly monitoring continued from previous permit. The facility reported from no discharge to 1.94 MGD at all active outfalls in the last permit term.

**CONVENTIONAL:****Chemical Oxygen Demand (COD)**

Monitoring is continued from the previous permit using best professional judgment under 10 CSR 20-6.200(6)(B)2.C. There is no numeric water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the facility to identify increases in COD may indicate materials/chemicals coming into contact with stormwater causing an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. The facility reported from 10 to 171 mg/L in the last permit term.

**pH**

6.0 to 9.0 SU limit per 40 CFR 434.52(a): the limitations in this subsection apply to discharges from reclamation areas until the performance bond issued to the facility by the appropriate SMCRA authority has been released. Water quality limitations of 6.5 to 9.0 SU are not required as these outfalls are only stormwater. This limit is appropriate for all stormwater at this site. Using RPD, there is no reasonable potential to affect water quality therefore technology limitations for wastewater are applied. The facility reported from 6.68 to 8.98 SU in the last permit term. This parameter must be measured within the 15 minute holding time.

**Settleable Solids (SS)**

Daily maximum limit of 0.5 mL/L/hr and no monthly average per 40 CFR 434.63. The permit writer has determined all stormwater from the site can meet the post mining area limitations. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses benthic organisms use for habitat. Settleable solids are also a valuable indicator parameter. Continued solids monitoring allows the permittee to identify

increases in sediment and solids may indicate uncontrolled materials leaving the site. The effluent limitations in the previous permit have been reevaluated and found to be protective of the receiving stream. Weekly monitoring continued. The facility reported from 0.2 to 0.5 mL/L/hr in the last permit term. The effluent limitations in the previous permit have been reevaluated and found to be protective of the receiving stream, is appropriate based on the activities at the site and is continued pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment and in compliance with antibacksliding regulations.

#### **Total Suspended Solids (TSS)**

Monitoring with a daily maximum benchmark of 70 mg/L, derived from 40 CFR 434.52(b)(2); monthly sampling. There are no water quality limitations for this parameter. Outfalls subject to this limit set are discharging stormwater therefore a benchmark is allowed. There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the facility to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. The facility reported from 5 to 208 mg/L in the last permit term. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

#### **METALS:**

##### **Aluminum, Total Recoverable**

Previous permit limits were monitoring only; continued. The facility reported between 16.1 and 9080 µg/L in the last permit term. This parameter does not have RP because this is only stormwater discharge. See REASONABLE POTENTIAL and STORMWATER PERMITTING in Part III. Aluminum is a naturally occurring element in the coal seams that have been mined. Effluent data is expected to improve the more that the site is reclaimed and vegetated.

##### **Iron, Total Recoverable**

7,000 µg/L benchmark continued from the previous permit using best professional judgment under 10 CSR 20-6.200(6)(B)2.C. The benchmark was derived from the ELG at 40 CFR 434.52(b)(2); the facility reported between 50 and 8340 µg/L in the last permit term. Because this is an intermittent discharge of stormwater, this parameter does not have RP; iron is naturally occurring. See REASONABLE POTENTIAL and STORMWATER PERMITTING in Part III.

## **PART V. ADMINISTRATIVE REQUIREMENTS**

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

#### **PUBLIC NOTICE**

The Department shall give public notice a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in or with concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and facility must be notified of the denial in writing. <https://dnr.mo.gov/water/what-were-doing/public-notices> The Department must issue public notice of a draft operating permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wishing to submit comments regarding this proposed operating permit, please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments. All comments must be in written form.

✓ The Public Notice period for this operating permit is December 29, 2023 through January 29, 2024. No comments were received.

**DATE OF FACT SHEET:** JANUARY 30, 2024

#### **COMPLETED BY:**

PAM HACKLER, ENVIRONMENTAL SCIENTIST

MISSOURI DEPARTMENT OF NATURAL RESOURCES

WATER PROTECTION PROGRAM | OPERATING PERMITS SECTION - INDUSTRIAL UNIT

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STANDARD CONDITIONS FOR NPDES PERMITS  
ISSUED BY  
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION  
REVISED  
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

## Part I – General Conditions

### Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
  - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
  - a. Records of monitoring information shall include:
    - i. The date, exact place, and time of sampling or measurements;
    - ii. The individual(s) who performed the sampling or measurements;
    - iii. The date(s) analyses were performed;
    - iv. The individual(s) who performed the analyses;
    - v. The analytical techniques or methods used; and
    - vi. The results of such analyses.
  - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee’s sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
  - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
  - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

### Section B – Reporting Requirements

1. **Planned Changes.**
  - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
    - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
    - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
    - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
    - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
  - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
    - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
    - ii. Any upset which exceeds any effluent limitation in the permit.
    - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
  - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
  4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
  5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
  6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
  7. **Discharge Monitoring Reports.**
    - a. Monitoring results shall be reported at the intervals specified in the permit.
    - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
    - c. Monitoring results shall be reported to the Department no later than the 28<sup>th</sup> day of the month following the end of the reporting period.
- b. Notice.
    - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
    - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
  - c. Prohibition of bypass.
    - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
      1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      3. The permittee submitted notices as required under paragraph 2. b. of this section.
    - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
    - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
    - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      - ii. The permitted facility was at the time being properly operated; and
      - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
    - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

## Section C – Bypass/Upset Requirements

1. **Definitions.**
  - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
  - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
  - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
  - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

## Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
  - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
  - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



STANDARD CONDITIONS FOR NPDES PERMITS  
ISSUED BY  
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION  
REVISED  
AUGUST 1, 2014

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
  - d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
    - a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
    - b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission

for applications to be submitted later than the expiration date of the existing permit.)

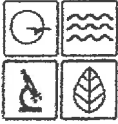
- c. A permittee with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
  4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
  5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
  6. **Permit Actions.**
    - a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      - i. Violations of any terms or conditions of this permit or the law;
      - ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      - iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      - iv. Any reason set forth in the Law or Regulations.
    - b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
  7. **Permit Transfer.**
    - a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
    - b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
    - c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
  8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
  9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



STANDARD CONDITIONS FOR NPDES PERMITS  
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MISSOURI CLEAN WATER COMMISSION  
REVISED  
AUGUST 1, 2014

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
  - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
  - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
  - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
  - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
  - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.





MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM  
**FORM A – APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI  
CLEAN WATER LAW**

AP 41473

**FOR AGENCY USE ONLY**

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

JET PAY CONFIRMATION NUMBER

**PLEASE READ ALL THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.  
SUBMITTAL OF AN INCOMPLETE APPLICATION MAY RESULT IN THE APPLICATION BEING RETURNED.**

**IF YOUR FACILITY IS ELIGIBLE FOR A NO EXPOSURE EXEMPTION:**

Fill out the No Exposure Certification Form (Mo 780-2828): <https://dnr.mo.gov/forms/780-2828-f.pdf>

**1. REASON FOR APPLICATION:**

- ☒ a. This facility is now in operation under Missouri State Operating Permit (permit) MO – 0138061, is submitting an application for renewal, and there is no proposed increase in design wastewater flow. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ b. This facility is now in operation under permit MO – \_\_\_\_\_, is submitting an application for renewal, and there is a proposed increase in design wastewater flow. Antidegradation Review may be required. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ c. This is a facility submitting an application for a new permit (for a new facility). Antidegradation Review may be required. New permit fee is required.
- ☐ d. This facility is now in operation under Missouri State Operating Permit (permit) MO – \_\_\_\_\_ and is requesting a modification to the permit. Antidegradation Review may be required. Modification fee is required.

**2. FACILITY**

NAME Foster South Mine		TELEPHONE NUMBER WITH AREA CODE 1 (913) 491-1717	
ADDRESS (PHYSICAL) 7428 SW State Route U	CITY Rich Hill	STATE MO	ZIP CODE 64779

**3. OWNER**

NAME Continental Coal, Inc.		TELEPHONE NUMBER WITH AREA CODE 1 (913) 491-1717	
EMAIL ADDRESS philtearney@continentalcoal.com			
ADDRESS (MAILING) 10801 Mastin Suite 920	CITY Overland Park	STATE KS	ZIP CODE 66210

**4. CONTINUING AUTHORITY**

NAME Same as Owner		TELEPHONE NUMBER WITH AREA CODE	
EMAIL ADDRESS			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

**5. OPERATOR CERTIFICATION**

NAME Same as Owner	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

**6. FACILITY CONTACT**

NAME Philip E. Tearney	TITLE President	TELEPHONE NUMBER WITH AREA CODE 1 (913) 491-1717
E-MAIL ADDRESS philtearney@continentalcoal.com		

**7. DOWNSTREAM LANDOWNER(S)** Attach additional sheets as necessary.

NAME See Form A 7.0 Downstream Landowners			
ADDRESS	CITY	STATE	ZIP CODE

**RECEIVED**

**FEB 1 · 2023**

Water Protection Program

## 8. ADDITIONAL FACILITY INFORMATION

### 8.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

For Universal Transverse Mercator (UTM), use Zone 15 North referenced to North American Datum 1983 (NAD83)

001 See 1/4 attach 1/4 Sec 8.1 T R County  
UTM Coordinates Easting (X): Northing (Y):

002 1/4 1/4 Sec T R County  
UTM Coordinates Easting (X): Northing (Y):

003 1/4 1/4 Sec T R County  
UTM Coordinates Easting (X): Northing (Y):

004 1/4 1/4 Sec T R County  
UTM Coordinates Easting (X): Northing (Y):

Include all subsurface discharges and underground injection systems for permit consideration.

### 8.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

Primary SIC 1221 and NAICS SIC and NAICS  
SIC and NAICS SIC and NAICS

## 9. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION

- A. Is this permit for a manufacturing, commercial, mining, solid/hazardous waste, or silviculture facility? YES ☒ NO ☐  
If yes, complete Form C.
- B. Is the facility considered a "Primary Industry" under EPA guidelines (40 CFR Part 122, Appendix A): YES ☒ NO ☐  
If yes, complete Forms C and D.
- C. Is wastewater land applied? YES ☐ NO ☒  
If yes, complete Form I.
- D. Are sludge, biosolids, ash, or residuals generated, treated, stored, or land applied? YES ☐ NO ☒  
If yes, complete Form R.
- E. Have you received or applied for any permit or construction approval under the CWA or any other environmental regulatory authority? YES ☒ NO ☐  
If yes, please include a list of all permits or approvals for this facility:  
Environmental Permits for this facility: MoLRP - 2015-01E2 : APCP - 092017-002
- F. Do you use cooling water in your operations at this facility? YES ☐ NO ☒  
If yes, please indicate the source of the water:
- G. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

## 10. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit <https://dnr.mo.gov/env/wpp/edmr.htm> for information on the Department's eDMR system and how to register.

- ☐ - I will register an account online to participate in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before any reporting is due, in compliance with the Electronic Reporting Rule.
- ☒ - I have already registered an account online to participate in the Department's eDMR system through MoGEM.
- ☐ - I have submitted a written request for a waiver from electronic reporting. See instructions for further information regarding waivers.
- ☐ - The permit I am applying for does not require the submission of discharge monitoring reports.



## 11. FEES

Permit fees may be paid by attaching a check, or online by credit card or eCheck through the JetPay system. Use the URL provided to access JetPay and make an online payment:

For new permits: <https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/591>

For modifications: <https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/596>

## 12. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Philip E. Teamey, - President

TELEPHONE NUMBER WITH AREA CODE

1 (913) 491-1717

SIGNATURE

DATE SIGNED

1/23/2023

FORM A  
7.0 DOWNSTREAM LANDOWNERS

FOSTER SOUTH MINE  
January 2023

DP-002, DP-003,  
& DP-005

Vernon & Sherry Botkin  
7042 SW County Road 5508  
Rich Hill, MO. 64779-7851

DP-006

Laughlin Farms LLC  
C/O Robert Laughlin  
9195 SW County Road 5508  
Rich Hill, MO. 64779-9668

\*Woods et al  
18865 Chmidling Dr.,  
Leavenworth, KS. 66048

\*Although the Laughlin Farms property is down stream of DP-006 outfall, the Woods et al property is approximately 300 feet downstream of outfall DP-006.

DP-007 & DP-008

Parker/Rogers (George M. III & Laura Parker,  
and David & Pamela Rogers)  
C/O George Jr. & Carol Parker  
8025 SW State Route U  
Rich Hill, MO. 64779

Ronald D. Crain  
9258 SW County Road 9508  
Rich Hill, MO. 64779-7828

Note: Outfalls DP-001 and DP-004 have been reclaimed. The drainage from DP-001 flows through DP-007 and the drainage from DP-004 flows through DP-006. Outfalls DP-009 and DP-010 were not used.

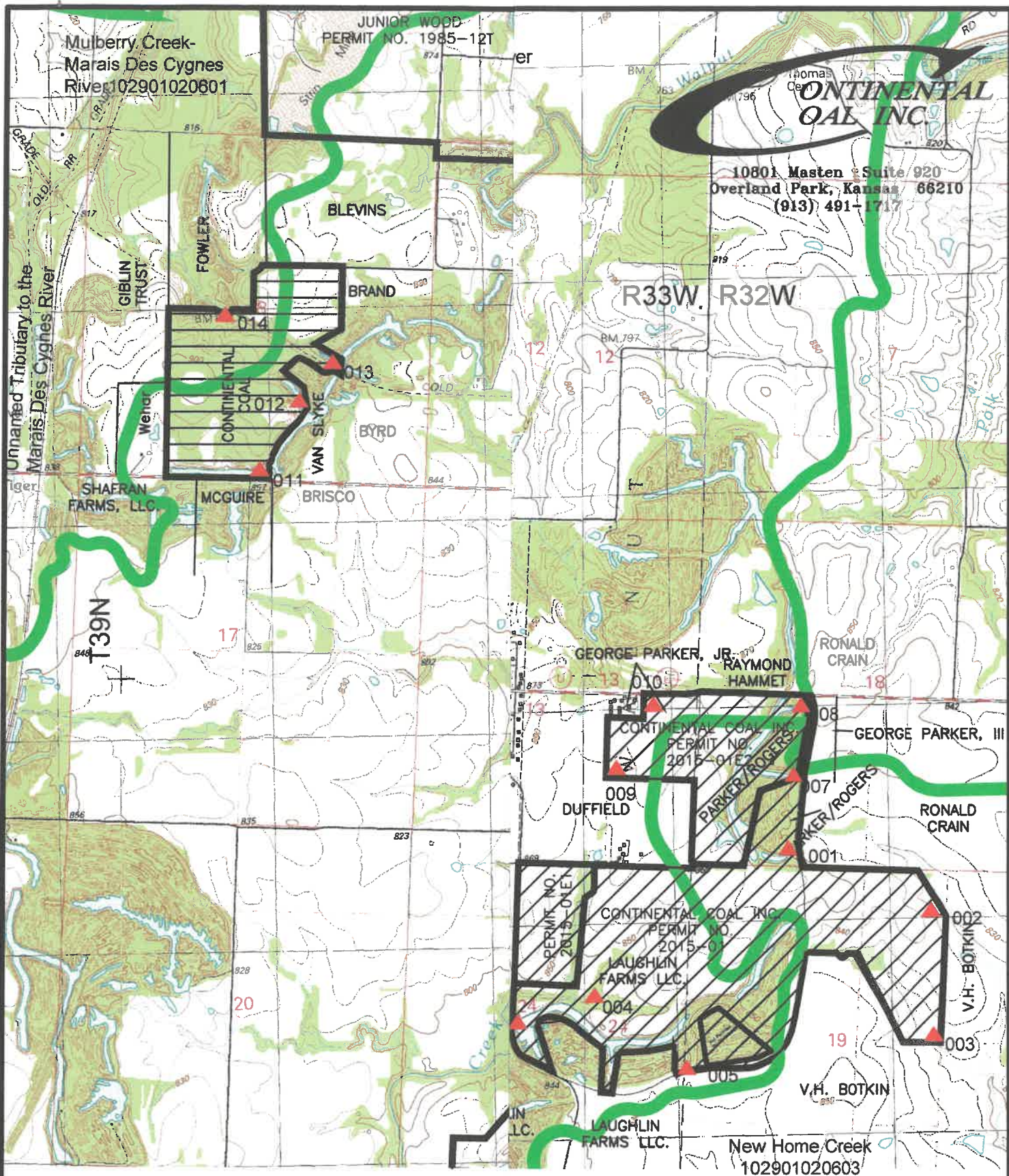
**Continental Coal, Inc.**  
**Foster South Mine**  
**N.P.D.E.S. No. MO-0138061**  
**January 2023**  
**Form A 8.1\***

DISCHARGE POINT ID	FIRST CLASSIFIED STREAM & ID	USGS BASIN & SUB-WATERSHED NO.	STATUS	SECTION TOWNSHIP RANGE	COORDINATES	UTM COORDINATES
001G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Reclaimed (Alkaline)	SE/4 of SW/4 of Section 18 T.39N. R.32W. Bates County	N38° 09' 33.9" W094° 29' 20.0"	X 369559 Y 4224550
002G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Post-Mine (Alkaline)	NW/4 of NE/4 of Section 19 T.39N. R.32W. Bates County	N38° 09' 27.4" W094° 28' 54.6"	X 370193 Y 4224349
003G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Post-Mine (Alkaline)	SW/4 of NE/4 of Section 19 T.39N. R.32W. Bates County	N38° 09' 07.9" W094° 28' 55.8"	X 370136 Y 4223738
004G	Unnamed Tributary to Gillum Creek (c)(01307)	10290102 0603	Reclaimed (Alkaline)	SW/4 of NE/4 of Section 24 T.39N. R.33W. Bates County	N38° 09' 11.0" W094° 30' 01.2"	X 368522 Y 422389
005G	Unnamed Tributary to New Home Creek (c)(01306)	10290102 0603	Post-Mine (Alkaline)	NW/4 of SW/4 of Section 19 T.39N. R.32W. Bates County	N38° 09' 01.0" W094° 29' 39.9"	X 369057 Y 4223543
006G	Unnamed Tributary to Gillum Creek (c)(01307)	10290102 0602	Post-Mine (Alkaline)	SW/4 of NE/4 of Section 24 T.39N. R.33W. Bates County	N38° 09' 07.7" W094° 30' 11.3"	X 368302 Y 4223768
007G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Post-Mine (Alkaline)	NW/4 of SW/4 of Section 18 T.39N. R.32W. Bates County	N38° 09' 44.0" W094° 29' 20.8"	X 369546 Y 4224862
008G	Unnamed Tributary to Polk Branch (c)(01307)	10290102 0603	Post-Mine (Alkaline)	NW/4 of SW/4 of Section 18 T.39N. R.32W. Bates County	N38° 09' 55.0" W094° 29' 19.6"	X 369580 Y 4225199
009G	Unnamed Tributary to Gillum Creek (c)(01307)	10290102 0603	Proposed Site, Will Never Be Constructed (Anticipated)	NE/4 of SE/4 of Section 13 T.39N. R.33W. Bates County	N38° 09' 44.3" W094° 29' 53.6"	X 368747 Y 4224884
010G	Unnamed Tributary to Walnut Creek (c)(01307)	10290102 0603	Proposed Site, Will Never Be Constructed (Anticipated)	NE/4 of SE/4 of Section 13 T.39N. R.33W. Bates County	N38° 09' 53.6" W094° 29' 49.0"	X 368864 Y 4225170

G - Discharge Points Draining Areas that No Bonds Have Been Released.

\* From WPCP Permit Issued January 1, 2019.





Worland Quadrangle Missouri-Kansas (1991)  
Hume Quadrangle Missouri-Kansas (1991)  
New Home Missouri (1991)  
Sprague Missouri (1991)  
7.5 Minute Series (Topographical)

Z:\Triad Projects\41-34\Gen Ref Maps.dwg\NPDES Outfall Map(2023)

Rev 1	March 2018
Parker "eta" Expansion 007, 008, 009, & 010	
2	Jan 2023
NPDES Outfall Location	

Continental Coal, Inc.

NPDES Outfall Location Map

drawn by	date	Triad Environmental Services P.O. Box 1507 Pittsburg, KS 66762 (820) 231-6060 Fax (820) 231-6061
MG	02/2022	



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH  
**FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL,  
MINING, SILVICULTURE OPERATIONS, AND STORMWATER**

**GENERAL INFORMATION (PLEASE SEE INSTRUCTIONS)**

1.0 NAME OF FACILITY

Continental Coal, Inc. - Foster South Mine

1.1 THIS FACILITY IS OPERATING UNDER MISSOURI STATE OPERATING PERMIT (MSOP) NUMBER:

MO-0138061

1.2 IS THIS A NEW FACILITY? PROVIDE CONSTRUCTION PERMIT (CP) NUMBER IF APPLICABLE.

No - Mining started in January 2016 and was completed in September of 2022.

1.3 Describe the nature of the business, in detail. Identify the goods and services provided by the business. Include descriptions of all raw, intermediate, final products, byproducts, or waste products used in the production or manufacturing process, stored outdoors, loaded or transferred and any other pertinent information for potential sources of wastewater or stormwater discharges.

Surface mining of Bituminous Coal. All discharge is based on Post Mine - stormwater runoff (precipitation events), that flows thru sedimentation (settling) ponds prior to discharging.

Area surface mining techniques using large bulldozers and backhoe and truck operation were used to uncover the Mulberry coal seam. The coal was removed from the pit and stored outside at the Coal Processing Area where sizing by mechanical means was completed from January 2016 thru September 2022. Reclamation (soil replacement) was completed in early December 2022. No intake water is used during the mechanical sizing. No public sewers are located on site. Portable outhouses were used for sanitary wastes. Settling (Outfall) ponds are used to treat and discharge precipitation events from the mine site. Outfall flows are the direct result of the amount of precipitation that falls on the site. A water flow diagram (C-2.0) is attached.

**FLOWS, TYPE, AND FREQUENCY**

2.0 Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in item B. Construct a water balance on the line drawing by showing average and maximum flows between intakes, operations, treatment units, evaporation, public sewers, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

2.1 For each outfall (1) below, provide: (2) a description of all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, stormwater runoff, and any other process or non-process wastewater, (3) the average flow and maximum flow (put max in parentheses) contributed by each operation and the sum of those operations, (4) the treatment received by the wastewater, and (5) the treatment type code. Continue on additional sheets if necessary.

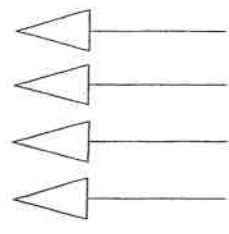
1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW; INCLUDE ALL PROCESSES AND SUB PROCESSES AT EACH OUTFALL	3. AVERAGE FLOW AND (MAXIMUM FLOW), INCLUDE UNITS.	4. TREATMENT DESCRIPTION	5. TREATMENT CODES FROM TABLE A
002	Post Mine - Stormwater (Alkaline)	0.025 (0.71) MGD	Sedimentation (Settling)	1-U
003	Post Mine - Stormwater (Alkaline)	0.062 (0.64) MGD	Sedimentation (Settling)	1-U
005	Post Mine - Stormwater (Alkaline)	0.032 (0.97) MGD	Sedimentation (Settling)	1-U
006	Post Mine - Stormwater (Alkaline)	0.22 (3.23) MGD	Sedimentation (Settling)	1-U
007	Post Mine - Stormwater (Alkaline)	0.20 (3.88) MGD	Sedimentation (Settling)	1-U
008	Post Mine - Stormwater (Alkaline)	0.056 (1.29) MGD	Sedimentation (Settling)	1-U

Attach additional pages if necessary.

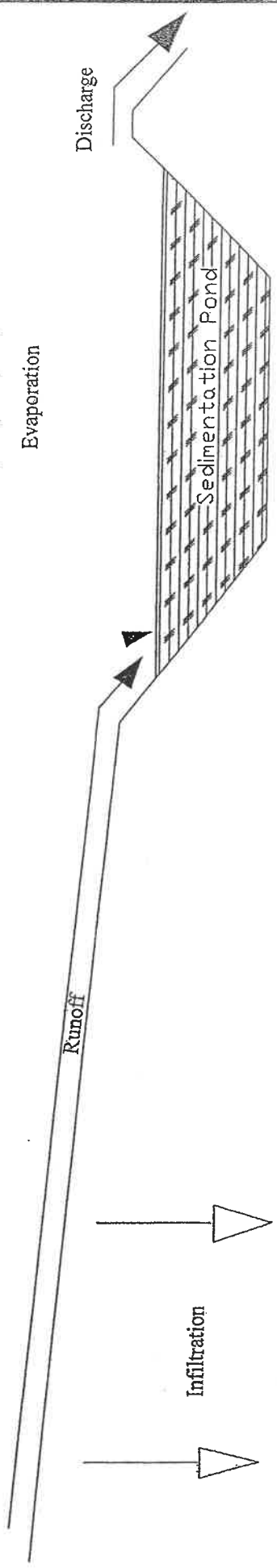




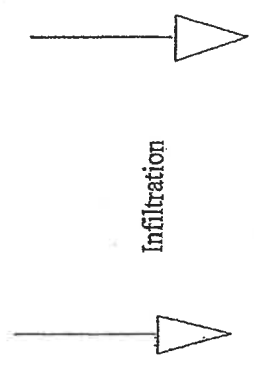
Rainfall



Evaporation



Infiltration



Continental Coal , Inc.

Water Flow Diagram  
Attachment C-2.0



## 2.2 INTERMITTENT DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharges described in items 2.0 or 2.1 intermittent or seasonal?

☐ Yes (complete the following table)

☒ No (go to section 2.3)

1. OUTFALL NUMBER	2. OPERATION(S) CONTRIBUTING FLOW	3. FREQUENCY		4. FLOW				C. DURATION (in days)
				A. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK (specify average)	B. MONTHS PER YEAR (specify average)	1. MAXIMUM DAILY	2. LONG TERM AVERAGE	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

## 2.3 PRODUCTION

A. Does an effluent limitation guideline (ELG) promulgated by EPA under section 304 of the Clean Water Act apply to your facility? Indicate the part and subparts applicable.

☒ Yes 40 CFR 434

Subpart(s) E

☐ No (go to section 2.5)

B. Are the limitations in the effluent guideline(s) expressed in terms of production (or other measure of operation)? Describe in C below.

☐ Yes (complete C.)

☒ No (go to section 2.5)

C. If you answered "yes" to B, list the quantity representing an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline and indicate the affected outfalls.

A. OUTFALL(S)	B. QUANTITY PER DAY	C. UNITS OF MEASURE	D. OPERATION, PRODUCT, MATERIAL, ETC. (specify)

## 2.4 IMPROVEMENTS

A. Are you required by any federal, state, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ Yes (complete the following table)

☒ No (go to 2.6)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
			A. REQUIRED	B. PROJECTED
		Could not locate 2.6.		

B. Optional: provide below or attach additional sheets describing water pollution control programs or other environmental projects which may affect discharges. Indicate whether each program is underway or planned, and indicate actual or planned schedules for construction. This may include proposed bmp projects for stormwater.

## 2.5 SLUDGE MANAGEMENT

Describe the removal of any industrial or domestic biosolids or sludges generated at your facility. Include names and contact information for any haulers used. Note the frequency, volume, and methods (incineration, landfilling, composting, etc) used. See Form A for additional forms which may need to be completed.

No industrial or domestic biosolids or sludges will be generated at this facility.

## DATA COLLECTION AND REPORTING REQUIREMENTS FOR APPLICANTS

### 3.0 EFFLUENT (AND INTAKE) CHARACTERISTICS (SEE INSTRUCTIONS)

A. & B. See instructions before continuing – complete one Table 1 for **each outfall** (and intake) – annotate the outfall (intake) number or designation in the space provided. The facility is not required to complete intake data unless required by the department or rule.

C. Use the space below to list any pollutants listed in the instructions section 3.0 C. Table B which you know or have reason to believe is discharged or may be discharged from any outfall not listed in parts 3.0 A or B on Table 1. For every pollutant listed, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	3. OUTFALL(S)	4. ANALYTICAL RESULTS (INCLUDE UNITS)
No Pollutant from Table B are expected in Effluent.			

### 3.1 Whole Effluent Toxicity Testing

A. To your knowledge, have any Whole Effluent Toxicity (WET) tests been performed on the facility discharges (or on receiving waters in relation to your discharge) within the last three years?

☐ Yes (go to 3.1 B) ☒ No (go to 3.2)

#### 3.1 B

Disclose wet testing conditions, including test duration (chronic or acute), the organisms tested, and the testing results. Provide any results of toxicity identification evaluations (TIE) or toxicity reduction evaluations (TRE) if applicable. Please indicate the conclusions of the test(s) including any pollutants identified as causing toxicity and steps the facility is taking to remedy the toxicity.

### 3.2 CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported herein, above, or on Table 1 performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, telephone number, and pollutants analyzed by each laboratory or firm.) ☐ No (go to 4.0)

A. LAB NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list or group)
Pace Analytical Services, LLC.	9608 Loiret Blvd. Lenexa, KS 66219	1 (913) 599-5665	

#### 4.0 STORMWATER

##### 4.1

Do you have industrial stormwater discharges from the site? If so, attach a site map outlining drainage areas served by each outfall. Indicate the following attributes within each drainage area: pavement or other impervious surfaces; buildings; outdoor storage areas; material loading and unloading areas; outdoor industrial activities; structural stormwater control measures; hazardous waste treatment, storage, and disposal units; and wells or springs in the area.

OUTFALL NUMBER	TOTAL AREA DRAINED (PROVIDE UNITS)	TYPES OF SURFACES (VEGETATED, STONE, PAVED, ETC)	BEST MANAGEMENT PRACTICES EMPLOYED; INCLUDE STRUCTURAL BMPs AND TREATMENT DESIGN FLOW FOR BMPs DESCRIBE HOW FLOW IS MEASURED
002	23.0 ac.	Soil/Vegetation	Vegetative cover varies from 0 to 100%. Disturbed areas are vegetated as
003	108 ac.	Soil/Vegetation	soon as weather conditions allow after soil has been replaced. BMP dictate
005	49 ac.	Soil/Vegetation	keeping disturbed areas as small as possible. Settling ponds are used to
006	296 ac.	Soil/Vegetation	treat Post Mine - Stormwater runoff. Depth of flow is measured to calculate
007	151 ac.	Soil/Vegetation	flow. The above information is applicable to all outfalls.
008	16.0 ac.	Soil/Vegetation	

##### 4.2 STORMWATER FLOWS

Provide the date of sampling with the flows, and how the flows were estimated. Measure the depth of flow. Calculate flow from pond specific flow charts.

#### SIGNATORY REQUIREMENTS

##### 5.0 CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Philip E. Tearney - President	1 (913) 491-1717
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED
	1/23/2023

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

**EFFLUENT (AND INTAKE) CHARACTERISTICS**

**THIS OUTFALL IS:** Alkaline mine drainage stormwater sedimentation pond - Post Mine<sup>A</sup>

OUTFALL NO. 002

**3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.**

1. POLLUTANT	2. VALUES								3. UNITS (specify if blank)	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES			D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.8							1*	mg/L	
B. Chemical Oxygen Demand (COD)	53.5				28.1			14##	mg/L	
C. Total Organic Carbon (TOC)	6.1							1*	mg/L	
D. Total Suspended Solids (TSS)	208				39.53			16#	mg/L	
E. Ammonia as N	<0.1							1*	mg/L	
F. Flow	VALUE 0.71		VALUE		VALUE 0.025			179#	MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature (winter)	VALUE 55.4		VALUE		VALUE 46.4			4#	°F	
H. Temperature (summer)	VALUE 87.8		VALUE		VALUE 82.4			20#	°F	
I. pH	MINIMUM 6.68		MAXIMUM 8.95		AVERAGE			54#	STANDARD UNITS (SU)	

**3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.**

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )		X	MINIMUM		MINIMUM						
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		3.4				2.0		13##	mg/L	
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate ( <i>as N</i> )		X									
J. Kjeldahl, Total ( <i>as N</i> )		X									
K. Nitrogen, Total Organic ( <i>as N</i> )		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus ( <i>as P</i> ), Total (7723-14-0)		X									
O. Sulfate ( <i>as SO<sub>4</sub></i> ) (14808-79-8)	X			196.0			77.8		14##	mg/L	
P. Sulfide ( <i>as S</i> )		X									
Q. Sulfite ( <i>as SO<sub>3</sub></i> ) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X			6.630			1.517		17##	mg/L	
2M. Antimony, Total Recoverable (7440-36-9)	X			<0.015					1**	mg/L	
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)	X			0.0469					1**	mg/L	
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)	X			<0.100					1**	mg/L	
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)	X			<0.005					1**	mg/L	
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		8.340				1.577		17##	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		7.480						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		6.550				3.397		2##	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		0.0067						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				0.0046		4**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.007		3**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling January 2019.

\* = Sampling for 3.0 Part A on December 11, 2017.

\*\* = Sampling for Major Ions on May 24, 2018, additional Selenium and Thallium thru September 11, 2018.

# = Cumulative sampling from January 2016 thru December 2022.

## = Cumulative sampling from May 24, 2018 thru December 2022.



**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 003	
3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
2. VALUES										3. UNITS (specify if blank)	
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.5				3.0		2*	mg/L			
B. Chemical Oxygen Demand (COD)	43.4				21.1		25#	mg/L			
C. Total Organic Carbon (TOC)	9.3				7.5		2*	mg/L			
D. Total Suspended Solids (TSS)	46.0				13.2		37#	mg/L			
E. Ammonia as N	<0.1				<0.1		2*	mg/L			
F. Flow	VALUE 0.64		VALUE		VALUE 0.062		186#	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 66.2		VALUE		VALUE 48.2		18#	°F			
H. Temperature (summer)	VALUE 91.4		VALUE		VALUE 80.6		18#	°F			
I. pH	MINIMUM 6.79		MAXIMUM 8.98		AVERAGE		79#	STANDARD UNITS (SU)			
3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 - Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 323.0					MINIMUM 100.2		27#	mg/L
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		3.4					2.2		13#	mg/L
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity	X		140							1**	umhos/cm
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate (as N)		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic (as N)		X									
L. Oil and Grease	X										
M. Phenols, Total		X									
N. Phosphorus (as P), Total (7723-14-0)		X									
O. Sulfate (as SO <sup>4</sup> ) (14808-79-8)	X		150.0								
P. Sulfide (as S)		X									
Q. Sulfite (as SO <sup>3</sup> ) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X		1.860								
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015								
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)	X		0.0352								
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100								
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III, Total Recoverable (16065-83-1)	X		<0.005								
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		5.400				1.039		35#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		2.240						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		0.743				0.205		25#	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.011		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling January 2019.

\* = Sampling for 3.0 Part A on February 11, 2015 and December 11, 2017.

\*\* = Sampling for Major Ions on March 3, 2015, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling from February 2015 thru December 2022.

## = Cumulative sampling from January 2016 thru November 2016.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 005	
3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
2. VALUES											
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES			D. NO. OF ANALYSES	3. UNITS (specify if blank)		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	A. CONCENTRATION		B. MASS		
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.1							1*	mg/L		
B. Chemical Oxygen Demand (COD)	39.3				20.3			13##	mg/L		
C. Total Organic Carbon (TOC)	6.8							1*	mg/L		
D. Total Suspended Solids (TSS)	76.0				20.9			15##	mg/L		
E. Ammonia as N	<0.1							1*	mg/L		
F. Flow	VALUE	0.97	VALUE		VALUE	0.032		108#	MILLIONS OF GALLONS PER DAY (MGD)		
G. Temperature (winter)	VALUE		VALUE		VALUE			0#	°F		
H. Temperature (summer)	VALUE	84.2	VALUE		VALUE	83.3		3#	°F		
I. pH	MINIMUM	7.48	MAXIMUM	8.30	AVERAGE			16#	STANDARD UNITS (SU)		
3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.											
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES		
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 - Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )		X	MINIMUM				MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		2.2				1.7		10##	mg/L	
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate (as N)		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic (as N)		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus (as P), Total (7723-14-0)		X									
O. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		914.0				162.7		11##	mg/L	
P. Sulfide (as S)		X									
Q. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X		4.670				1.038		13##	mg/L	
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L	
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)	X		0.147						1**	mg/L	
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)	X		0.109						1**	mg/L	
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L	
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		4.090				0.940		13##	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		125.000						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		1.840				1.315		2##	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.011		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling April 2019.

\* = Sampling for 3.0 Part A on December 11, 2017.

\*\* = Sampling for Major Ions on May 24, 2018, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling from October 2017 thru December 2022.

## = Cumulative sampling from December 2017 thru December 2022.



**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS		THIS OUTFALL IS: Alkaline mine drainage stormwater sedimentation pond - Post Mine <sup>A</sup>										OUTFALL NO. 006
3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.												
2. VALUES												
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES			D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	3. UNITS (specify if blank)	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.9				3.5			2*	mg/L			
B. Chemical Oxygen Demand (COD)	121.0				18.7			73#	mg/L			
C. Total Organic Carbon (TOC)	8.0				7.5			2*	mg/L			
D. Total Suspended Solids (TSS)	62.5				9.7			97#	mg/L			
E. Ammonia as N	<0.1				<0.1			2*	mg/L			
F. Flow	VALUE 0.22				VALUE 3.230			232#	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 62.6				VALUE 47.3			36#	°F			
H. Temperature (summer)	VALUE 91.4				VALUE 81.9			40#	°F			
I. pH	MINIMUM 6.56				MAXIMUM 8.96			173#	STANDARD UNITS (SU)			
3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.												
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE	B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 - Conventional and Non-Conventional Pollutants												
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 340.0		MINIMUM		MINIMUM 113.3		37#	mg/L		
B. Bromide (24959-67-9)		X										
C. Chloride (16887-00-6)	X		3.7				2.3		29#	mg/L		
D. Chlorine, Total Residual		X										
E. Color		X										
F. Conductivity	X		371									
F. Cyanide, Amenable to Chlorination		X							1**	umhos/cm		

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease	X		<5.0				<5.0		5##	mg/L		
M. Phenols, Total		X										
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		168.0				104.3		55#	mg/L		
P. Sulfide (as S)		X										
Q. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		5.150				0.213		71#	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)		X										
4M. Barium, Total Recoverable (7440-39-3)	X		0.0352						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)		X										
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)		X										
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)		X										
10M. Cobalt, Total Recoverable (7440-48-4)		X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		4.220				0.348		95#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		20.400						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		0.424				0.170		41#	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.006		3**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.007		3**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling January 2020.

\* = Sampling for 3.0 Part A on March 3, 2015 and December 11, 2017.

\*\* = Sampling for Major Ions March 3, 2015, additional Selenium and Thallium on June 27, 2018 and September 6, 2018.

# = Cumulative sampling from September 2014 thru December 2022.

## = Cumulative sampling from January 2016 thru May 2017.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

**EFFLUENT (AND INTAKE) CHARACTERISTICS**

**THIS OUTFALL IS:** Alkaline mine drainage stormwater sedimentation pond - Post Mine<sup>A</sup>

OUTFALL NO. 007

**3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.**

1. POLLUTANT	2. VALUES						3. UNITS (specify if blank)	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	2.6						1*	mg/L
B. Chemical Oxygen Demand (COD)	51.4				18.6		92#	mg/L
C. Total Organic Carbon (TOC)	7.5						1*	mg/L
D. Total Suspended Solids (TSS)	64.5				15.2		109#	mg/L
E. Ammonia as N	<0.01						1*	mg/L
F. Flow	VALUE 3.88		VALUE		VALUE 0.203		1*	mg/L
G. Temperature (winter)	VALUE 64.4		VALUE		VALUE 45.0		205#	MILLIONS OF GALLONS PER DAY (MGD)
H. Temperature (summer)	VALUE 95.0		VALUE		VALUE 84.2		24#	°F
I. pH	MINIMUM 6.94		MAXIMUM 8.75		AVERAGE		23#	°F
							110#	STANDARD UNITS (SU)

**3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.**

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS		

**Subpart 1 – Conventional and Non-Conventional Pollutants**

A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 263.0		MINIMUM		MINIMUM 119.5		25#	mg/L
B. Bromide (24959-67-9)		X								
C. Chloride (16887-00-6)	X		6.3				2.7		40#	mg/L
D. Chlorine, Total Residual		X								
E. Color		X								
F. Conductivity	X		284						1**	umhos/cm
F. Cyanide, Amenable to Chlorination		X								

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate (as N)		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic (as N)		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus (as P), Total (7723-14-0)		X									
O. Sulfate (as SO <sup>4</sup> ) (14808-79-8)	X		632.0				187.4		56#	mg/L	
P. Sulfide (as S)		X									
Q. Sulfite (as SO <sup>3</sup> ) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X		9.080				1.010		91##	mg/L	
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L	
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)	X		0.0461						1**	mg/L	
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L	
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L	
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									



1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		7.180				0.7941		108#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		15.000						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		0.7020				0.1423		26#	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22867926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.0105		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling December 2022.

\* = Sampling for 3.0 Part A on February 11, 2015.

\*\* = Sampling for Major Ions March 3, 2015, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling September 2014 thru December 2022.

## = Cumulative sampling September 2019 thru December 2022.

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS

THIS OUTFALL IS: Alkaline mine drainage stormwater sedimentation pond - Post Mine<sup>a</sup>

OUTFALL NO. 008

3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.

1. POLLUTANT	2. VALUES						3. UNITS (specify if blank)	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	2.6						1*	mg/L
B. Chemical Oxygen Demand (COD)	45.2				17.7		44#	mg/L
C. Total Organic Carbon (TOC)	7.5						1*	mg/L
D. Total Suspended Solids (TSS)	57.0				15.5		56#	mg/L
E. Ammonia as N	<0.10						1*	mg/L
F. Flow	VALUE 1.29		VALUE		VALUE 0.056		183#	MILLIONS OF GALLONS PER DAY (MGD)
G. Temperature (winter)	VALUE 55.4		VALUE		VALUE 43.7		9#	°F
H. Temperature (summer)	VALUE 89.1		VALUE		VALUE 77.2		7#	°F
I. pH	MINIMUM 6.57		MAXIMUM 8.36		AVERAGE		57#	STANDARD UNITS (SU)

3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER (# available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCN. TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 196.0		MINIMUM		MINIMUM 108.5		12##	mg/L	
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		5.6				2.7		22#	mg/L	
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity	X		284						1**	umhos/cm	
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. <i>E. coli</i>		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate (as N)		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic (as N)		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus (as P), Total (7723-14-0)		X									
O. Sulfate (as SO <sup>4</sup> ) (14808-79-8)	X		1400.0				207.3		33#	mg/L	
P. Sulfide (as S)		X									
Q. Sulfite (as SO <sup>3</sup> ) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X		8.440				1.608		43###	mg/L	
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L	
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)	X		0.0461						1**	mg/L	
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L	
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L	
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		8.170				1.429		55#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		15.000						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		2.470				0.326		13##	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.0105		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling December 2022.

\* = Sampling for 3.0 Part A on February 11, 2015.

\*\* = Sampling for Major Ions on March 3, 2015, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling from September 2014 thru December 2022.

## = Cumulative sampling from February 2020 thru December 2022.

### = Cumulative sampling from September 2014 thru April 2019.

# CONTINENTAL COAL, INC.

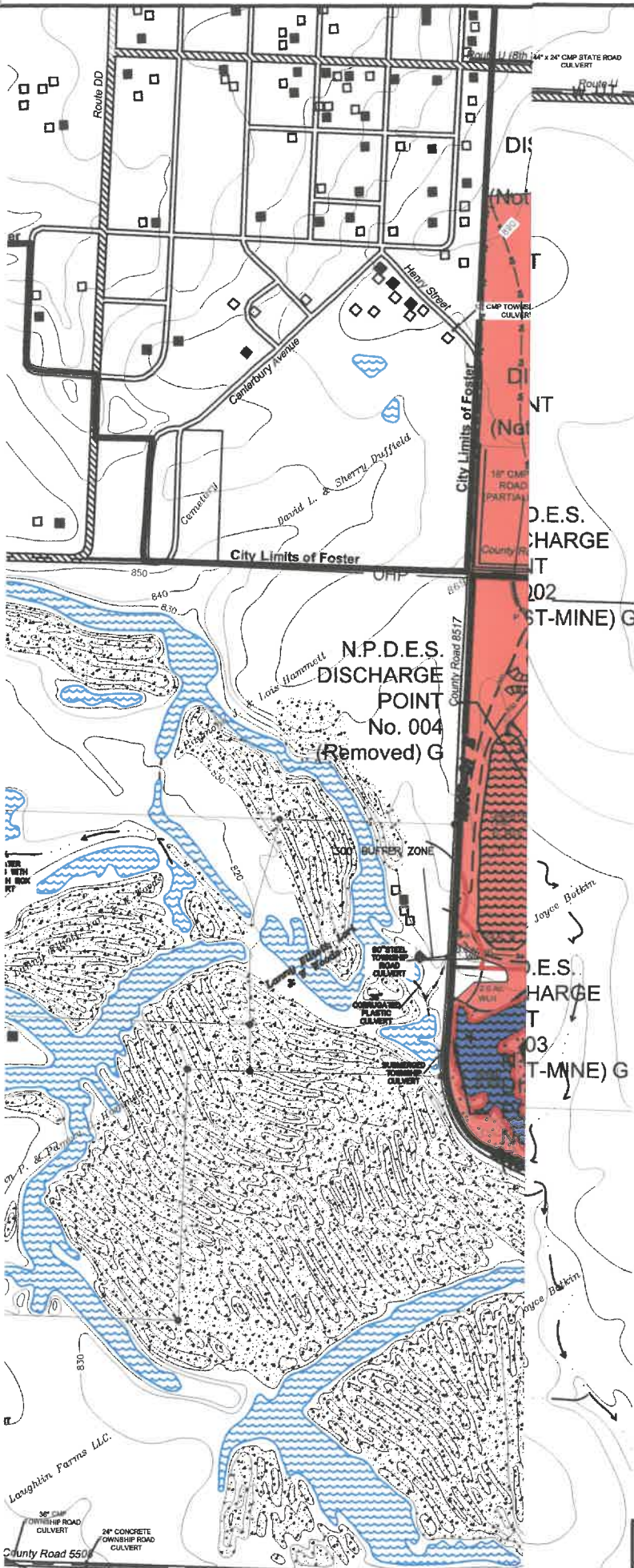
10801 Mastin, Suite 920  
Overland Park, Kansas 66210  
FOSTER SOUTH MINE  
PERMIT NO. 2015-01

SECTION 18, RANGE 32 WEST  
SECTION 19, RANGE 32 WEST  
SECTION 24, RANGE 33 WEST  
TOWNSHIP 39 NORTH

BATES COUNTY, MISSOURI  
WORLAND AND NEW HOME QUADRANGLES  
MISSOURI-KANSAS

7.5 MINUTE SERIES (TOPOGRAPHICAL)  
N.P.D.E.S. MAP

MO-0138061 Jan 2023



## LEGEND

	2015-01	PERMIT BOUNDARY
		APPROX. DISTURBANCE LINE
	880	EXISTING CONTOUR
		SECTION LINE
		HIGHWAY (PAVED)
		TOWNSHIP ROAD (GRAVEL)
		TOWNSHIP ROAD R.O.W. (UNIMPROVED)
	UT	UNDERGROUND TELEPHONE
	W	WATER LINE
	OHP	OVERHEAD POWER LINE
		PRE-EXISTING DRAINAGE
		DIVERSION (D-1)
		PROPERTY LINE
		EXISTING WATER
		SPOIL FROM PREVIOUS MINING
		NPDES DISCHARGE POINT
		EARTH DAM
		CULVERT
		OCCUPIED DWELLING
		UNOCCUPIED STRUCTURE
		SUITABLE SOIL COVER (1% CLAY MATERIAL)
		ROCK INLET

## LAND USE

- PRIME FARMLAND
- PASTURE See Section 13 for wildlife enhancement
- WILDLIFE HABITAT (TOPSOIL)
- WILDLIFE HABITAT (PM) (UNDISTURBED)
- WILDLIFE HABITAT (PM) (DISTURBED W/ SUITABLE COVER)
- WATER
- WATER (PM)

## SYMBOL

	PFF
	P
	WLH
	WLH(PM)
	WLH(PM)(G)
	W
	W(PM)

001-OUTFALL LOCATION ID

001\*\*, 002\*\*, 003\*\*, 004\*\*, 005\*\*, 006\*\*, 007\*\*, & 008\*\*

G-Discharge Points Draining Areas Where No Bonds Have Been Released

\*-Active  
\*\*-Post-Mine





GEOLOGICAL ENGINEERING SOLUTIONS FOR TODAY'S ENVIRONMENTAL CONCERNS  
P.O. BOX 1507 • PITTSBURG, KS 66762 • (620) 231-5660 • FAX (620) 231-5661  
triad@triad-es.com



January 30, 2023

Mr. Chris Wieberg  
Water Pollution Control Branch  
DNR-Water Protection Program  
P.O. Box 176  
Jefferson City, Mo. 65102-0176

RE: Continental Coal, Inc. - Foster South Mine - NPDES Permit Renewal Application for MO-0138061

Dear Mr. Wieberg,

On behalf of Continental Coal Inc. (CCI), attached is a renewal application for the N.P.D.E.S. permit MO-0138061 for Foster South Mine located east of Foster, Missouri.

Attached is one (1) original and one (1) copy of Forms A and C along with an N.P.D.E.S. Location Map that shows the locations of the outfall points and the landowners.

As per the instructions, site specific permit re-issuance fees are not required at this time.


It should be noted that outfalls DP-001 and DP-004 have been reclaimed. Drainage from these structures flow to DP-007 and DP-006 respectfully.

The water data collection dates are noted at the end of Form C for each outfall.

You are also being advised that mining (coal removal) was completed at this site in September of 2022 and reclamation was completed in early December of 2022. All of the outfalls are now being sampled under the stormwater and Post Mining criteria of Table A-3

Please call with any questions regarding the above action. Your prompt attention would be greatly appreciated. Thank you for your cooperation in this matter.

Respectfully,

  
Jim Bentley  
Reclamation Specialist

cc: Missouri – DNR Water Pollution Control, KCRO (cover letter only)  
Philip E. Tearney, Continental Coal, Inc.  
Foster South Mine



## ENVIRONMENTAL SERVICES

GEOLOGICAL ENGINEERING SOLUTIONS FOR TODAY'S ENVIRONMENTAL CONCERNS  
P.O. BOX 1507 • PITTSBURG, KS 66762 • (620) 231-5660 • FAX (620) 231-5661  
triad@triad-es.com



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Water Pollution Control Branch  
DNR-Water Protection Program  
P.O. Box 176  
Jefferson City, Mo. 65102-0176

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Respectfully,

Jim Bentley  
Reclamation Specialist

cc: Missouri – DNR Water Pollution Control, KCRO (cover letter only)  
Philip E. Tearney, Continental Coal, Inc.  
Foster South Mine



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM  
**FORM A – APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI  
CLEAN WATER LAW**

**RECEIVED**

FEB 1 2023

Water Protection Program

**FOR AGENCY USE ONLY**

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

JET PAY CONFIRMATION NUMBER

**PLEASE READ ALL THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.  
SUBMITTAL OF AN INCOMPLETE APPLICATION MAY RESULT IN THE APPLICATION BEING RETURNED.**

**IF YOUR FACILITY IS ELIGIBLE FOR A NO EXPOSURE EXEMPTION:**

Fill out the No Exposure Certification Form (Mo 780-2828): <https://dnr.mo.gov/forms/780-2828-f.pdf>

**1. REASON FOR APPLICATION:**

- ☒ a. This facility is now in operation under Missouri State Operating Permit (permit) MO – 0138061, is submitting an application for renewal, and there is no proposed increase in design wastewater flow. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ b. This facility is now in operation under permit MO – \_\_\_\_\_, is submitting an application for renewal, and there is a proposed increase in design wastewater flow. Antidegradation Review may be required. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ c. This is a facility submitting an application for a new permit (for a new facility). Antidegradation Review may be required. New permit fee is required.
- ☐ d. This facility is now in operation under Missouri State Operating Permit (permit) MO – \_\_\_\_\_ and is requesting a modification to the permit. Antidegradation Review may be required. Modification fee is required.

**2. FACILITY**

NAME Foster South Mine		TELEPHONE NUMBER WITH AREA CODE 1 (913) 491-1717	
ADDRESS (PHYSICAL) 7428 SW State Route U	CITY Rich Hill	STATE MO	ZIP CODE 64779

**3. OWNER**

NAME Continental Coal, Inc.		TELEPHONE NUMBER WITH AREA CODE 1 (913) 491-1717	
EMAIL ADDRESS philtearney@continentalcoal.com			
ADDRESS (MAILING) 10801 Mastin Suite 920	CITY Overland Park	STATE KS	ZIP CODE 66210

**4. CONTINUING AUTHORITY**

NAME Same as Owner		TELEPHONE NUMBER WITH AREA CODE	
EMAIL ADDRESS			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

**5. OPERATOR CERTIFICATION**

NAME Same as Owner	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

**6. FACILITY CONTACT**

NAME Philip E. Tearney	TITLE President	TELEPHONE NUMBER WITH AREA CODE 1 (913) 491-1717	
E-MAIL ADDRESS philtearney@continentalcoal.com			

**7. DOWNSTREAM LANDOWNER(S)** Attach additional sheets as necessary.

NAME See Form A 7.0 Downstream Landowners			
ADDRESS	CITY	STATE	ZIP CODE

MO 780-1479 (04-21)

**RECEIVED**

FEB 1 2023

Water Protection Program

## 8. ADDITIONAL FACILITY INFORMATION

### 8.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

For Universal Transverse Mercator (UTM), use Zone 15 North referenced to North American Datum 1983 (NAD83)

001 See  $\frac{1}{4}$  attach  $\frac{1}{4}$  Sec 8.1 T \_\_\_\_\_ R \_\_\_\_\_ County  
UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

002  $\frac{1}{4}$   $\frac{1}{4}$  Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County  
UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

003  $\frac{1}{4}$   $\frac{1}{4}$  Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County  
UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

004  $\frac{1}{4}$   $\frac{1}{4}$  Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County  
UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

Include all subsurface discharges and underground injection systems for permit consideration.

### 8.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

Primary SIC 1221 and NAICS \_\_\_\_\_ SIC \_\_\_\_\_ and NAICS \_\_\_\_\_  
SIC \_\_\_\_\_ and NAICS \_\_\_\_\_ SIC \_\_\_\_\_ and NAICS \_\_\_\_\_

## 9. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION

- A. Is this permit for a manufacturing, commercial, mining, solid/hazardous waste, or silviculture facility? YES ☒ NO ☐  
If yes, complete Form C.
- B. Is the facility considered a "Primary Industry" under EPA guidelines (40 CFR Part 122, Appendix A): YES ☒ NO ☐  
If yes, complete Forms C and D.
- C. Is wastewater land applied? YES ☐ NO ☒  
If yes, complete Form I.
- D. Are sludge, biosolids, ash, or residuals generated, treated, stored, or land applied? YES ☐ NO ☒  
If yes, complete Form R.
- E. Have you received or applied for any permit or construction approval under the CWA or any other environmental regulatory authority? YES ☒ NO ☐  
If yes, please include a list of all permits or approvals for this facility:  
Environmental Permits for this facility: MoLRP - 2015-01E2 ; APCP - 092017-002
- F. Do you use cooling water in your operations at this facility? YES ☐ NO ☒  
If yes, please indicate the source of the water: \_\_\_\_\_
- G. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

## 10. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit <https://dnr.mo.gov/env/wpp/edmr.htm> for information on the Department's eDMR system and how to register.

- ☐ - I will register an account online to participate in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before any reporting is due, in compliance with the Electronic Reporting Rule.
- ☒ - I have already registered an account online to participate in the Department's eDMR system through MoGEM.
- ☐ - I have submitted a written request for a waiver from electronic reporting. See instructions for further information regarding waivers.
- ☐ - The permit I am applying for does not require the submission of discharge monitoring reports.

## 11. FEES

Permit fees may be paid by attaching a check, or online by credit card or eCheck through the JetPay system. Use the URL provided to access JetPay and make an online payment:

For new permits: <https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/591>

For modifications: <https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/596>

## 12. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Philip E. Tearney, - President

TELEPHONE NUMBER WITH AREA CODE

1 (913) 491-1717

SIGNATURE

DATE SIGNED

1/23/2023

FORM A  
7.0 DOWNSTREAM LANDOWNERS

FOSTER SOUTH MINE  
January 2023

DP-002, DP-003,  
& DP-005

Vernon & Sherry Botkin  
7042 SW County Road 5508  
Rich Hill, MO. 64779-7851

DP-006

Laughlin Farms LLC  
C/O Robert Laughlin  
9195 SW County Road 5508  
Rich Hill, MO. 64779-9668

\*Woods et al  
18865 Chmidling Dr.,  
Leavenworth, KS. 66048

\*Although the Laughlin Farms property is down stream of DP-006 outfall, the Woods et al property is approximately 300 feet downstream of outfall DP-006.

DP-007 & DP-008

Parker/Rogers (George M. III & Laura Parker,  
and David & Pamela Rogers)  
C/O George Jr. & Carol Parker  
8025 SW State Route U  
Rich Hill, MO. 64779

Ronald D. Crain  
9258 SW County Road 9508  
Rich Hill, MO. 64779-7828

Note: Outfalls DP-001 and DP-004 have been reclaimed. The drainage from DP-001 flows through DP-007 and the drainage from DP-004 flows through DP-006. Outfalls DP-009 and DP-010 were not used.



**Continental Coal, Inc.**  
**Foster South Mine**  
**N.P.D.E.S. No. MO-0138061**  
**January 2023**  
**Form A 8.1\***

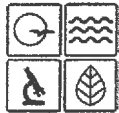
DISCHARGE POINT ID	FIRST CLASSIFIED STREAM & ID	USGS BASIN & SUB-WATERSHED NO.	STATUS	SECTION TOWNSHIP RANGE	COORDINATES	UTM COORDINATES
001G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Reclaimed (Alkaline)	SE/4 of SW/4 of Section 18 T.39N. R.32W. Bates County	N38° 09' 33.9" W094° 29' 20.0"	X 369559 Y 4224550
002G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Post-Mine (Alkaline)	NW/4 of NE/4 of Section 19 T.39N. R.32W. Bates County	N38° 09' 27.4" W094° 28' 54.6"	X 370193 Y 4224349
003G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Post-Mine (Alkaline)	SW/4 of NE/4 of Section 19 T.39N. R.32W. Bates County	N38° 09' 07.9" W094° 28' 55.8"	X 370136 Y 4223738
004G	Unnamed Tributary to Gillum Creek (c)(01307)	10290102 0603	Reclaimed (Alkaline)	SW/4 of NE/4 of Section 24 T.39N. R.33W. Bates County	N38° 09' 11.0" W094° 30' 01.2"	X 368522 Y 422389
005G	Unnamed Tributary to New Home Creek (c)(01306)	10290102 0603	Post-Mine (Alkaline)	NW/4 of SW/4 of Section 19 T.39N. R.32W. Bates County	N38° 09' 01.0" W094° 29' 39.9"	X 369057 Y 4223543
006G	Unnamed Tributary to Gillum Creek (c)(01307)	10290102 0602	Post-Mine (Alkaline)	SW/4 of NE/4 of Section 24 T.39N. R.33W. Bates County	N38° 09' 07.7" W094° 30' 11.3"	X 368302 Y 4223768
007G	Unnamed Tributary to New Home Creek (c)(01307)	10290102 0603	Post-Mine (Alkaline)	NW/4 of SW/4 of Section 18 T.39N. R.32W. Bates County	N38° 09' 44.0" W094° 29' 20.8"	X 369546 Y 4224862
008G	Unnamed Tributary to Polk Branch (c)(01307)	10290102 0603	Post-Mine (Alkaline)	NW/4 of SW/4 of Section 18 T.39N. R.32W. Bates County	N38° 09' 55.0" W094° 29' 19.6"	X 369580 Y 4225199
009G	Unnamed Tributary to Gillum Creek (c)(01307)	10290102 0603	Proposed Site, Will Never Be Constructed (Anticipated)	NE/4 of SE/4 of Section 13 T.39N. R.33W. Bates County	N38° 09' 44.3" W094° 29' 53.6"	X 368747 Y 4224884
010G	Unnamed Tributary to Walnut Creek (c)(01307)	10290102 0603	Proposed Site, Will Never Be Constructed (Anticipated)	NE/4 of SE/4 of Section 13 T.39N. R.33W. Bates County	N38° 09' 53.6" W094° 29' 49.0"	X 368864 Y 4225170

G - Discharge Points Draining Areas that No Bonds Have Been Released.

\* From WPCP Permit Issued January 1, 2019,







MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH  
**FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL,  
MINING, SILVICULTURE OPERATIONS, AND STORMWATER**

**GENERAL INFORMATION (PLEASE SEE INSTRUCTIONS)**

1.0 NAME OF FACILITY  
Continental Coal, Inc. - Foster South Mine

1.1 THIS FACILITY IS OPERATING UNDER MISSOURI STATE OPERATING PERMIT (MSOP) NUMBER:  
MO-0138061

1.2 IS THIS A NEW FACILITY? PROVIDE CONSTRUCTION PERMIT (CP) NUMBER IF APPLICABLE.  
No - Mining started in January 2016 and was completed in September of 2022.

1.3 Describe the nature of the business, in detail. Identify the goods and services provided by the business. Include descriptions of all raw, intermediate, final products, byproducts, or waste products used in the production or manufacturing process, stored outdoors, loaded or transferred and any other pertinent information for potential sources of wastewater or stormwater discharges.

Surface mining of Bituminous Coal. All discharge is based on Post Mine - stormwater runoff (precipitation events), that flows thru sedimentation (settling) ponds prior to discharging.

Area surface mining techniques using large bulldozers and backhoe and truck operation were used to uncover the Mulberry coal seam. The coal was removed from the pit and stored outside at the Coal Processing Area where sizing by mechanical means was completed from January 2016 thru September 2022. Reclamation (soil replacement) was completed in early December 2022. No intake water is used during the mechanical sizing. No public sewers are located on site. Portable outhouses were used for sanitary wastes. Settling (Outfall) ponds are used to treat and discharge precipitation events from the mine site. Outfall flows are the direct result of the amount of precipitation that falls on the site. A water flow diagram (C-2.0) is attached.

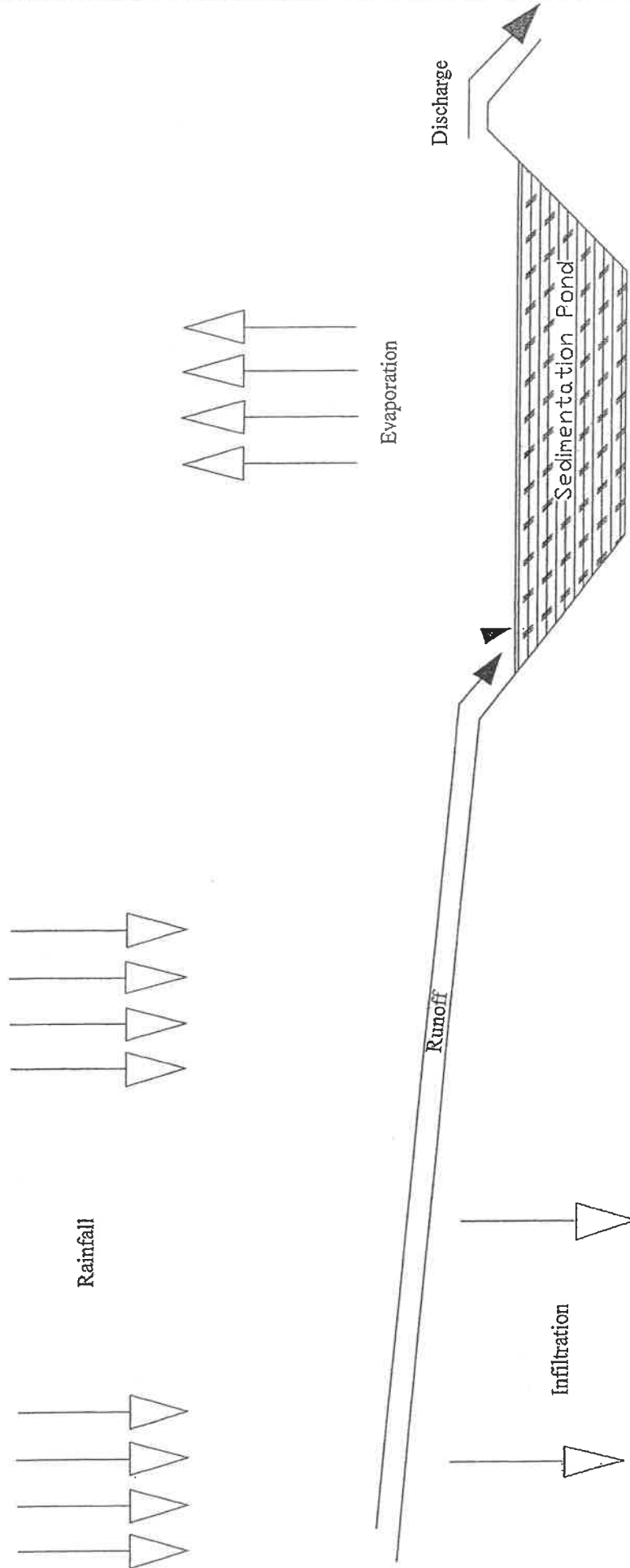
**FLOWS, TYPE, AND FREQUENCY**

2.0 Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in item B. Construct a water balance on the line drawing by showing average and maximum flows between intakes, operations, treatment units, evaporation, public sewers, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

2.1 For each outfall (1) below, provide: (2) a description of all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, stormwater runoff, and any other process or non-process wastewater, (3) the average flow and maximum flow (put max in parentheses) contributed by each operation and the sum of those operations, (4) the treatment received by the wastewater, and (5) the treatment type code. Continue on additional sheets if necessary.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW; INCLUDE ALL PROCESSES AND SUB PROCESSES AT EACH OUTFALL	3. AVERAGE FLOW AND (MAXIMUM FLOW), INCLUDE UNITS.	4. TREATMENT DESCRIPTION	5. TREATMENT CODES FROM TABLE A
002	Post Mine - Stormwater (Alkaline)	0.025 (0.71) MGD	Sedimentation (Settling)	1-U
003	Post Mine - Stormwater (Alkaline)	0.062 (0.64) MGD	Sedimentation (Settling)	1-U
005	Post Mine - Stormwater (Alkaline)	0.032 (0.97) MGD	Sedimentation (Settling)	1-U
006	Post Mine - Stormwater (Alkaline)	0.22 (3.23) MGD	Sedimentation (Settling)	1-U
007	Post Mine - Stormwater (Alkaline)	0.20 (3.88) MGD	Sedimentation (Settling)	1-U
008	Post Mine - Stormwater (Alkaline)	0.056 (1.29) MGD	Sedimentation (Settling)	1-U

Attach additional pages if necessary.



Continental Coal , Inc.

Water Flow Diagram  
Attachment C-2.0

## 2.2 INTERMITTENT DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharges described in items 2.0 or 2.1 intermittent or seasonal?

☐ Yes (complete the following table)

☒ No (go to section 2.3)

1. OUTFALL NUMBER	2. OPERATION(S) CONTRIBUTING FLOW	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	1. MAXIMUM DAILY	2. LONG TERM AVERAGE	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

## 2.3 PRODUCTION

A. Does an effluent limitation guideline (ELG) promulgated by EPA under section 304 of the Clean Water Act apply to your facility? Indicate the part and subparts applicable.

☒ Yes 40 CFR <sup>434</sup> Subpart(s) E ☐ No (go to section 2.5)

B. Are the limitations in the effluent guideline(s) expressed in terms of production (or other measure of operation)? Describe in C below.

☐ Yes (complete C.) ☒ No (go to section 2.5)

C. If you answered "yes" to B, list the quantity representing an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline and indicate the affected outfalls.

A. OUTFALL(S)	B. QUANTITY PER DAY	C. UNITS OF MEASURE	D. OPERATION, PRODUCT, MATERIAL, ETC. (specify)

## 2.4 IMPROVEMENTS

A. Are you required by any federal, state, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ Yes (complete the following table)

☒ No (go to 2.6)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
			A. REQUIRED	B. PROJECTED
		Could not locate 2.6.		

B. Optional: provide below or attach additional sheets describing water pollution control programs or other environmental projects which may affect discharges. Indicate whether each program is underway or planned, and indicate actual or planned schedules for construction. This may include proposed bmp projects for stormwater.

## 2.5 SLUDGE MANAGEMENT

Describe the removal of any industrial or domestic biosolids or sludges generated at your facility. Include names and contact information for any haulers used. Note the frequency, volume, and methods (incineration, landfilling, composting, etc) used. See Form A for additional forms which may need to be completed.

No industrial or domestic biosolids or sludges will be generated at this facility.

## DATA COLLECTION AND REPORTING REQUIREMENTS FOR APPLICANTS

### 3.0 EFFLUENT (AND INTAKE) CHARACTERISTICS (SEE INSTRUCTIONS)

A. & B. See instructions before continuing – complete one Table 1 for **each outfall** (and intake) – annotate the outfall (intake) number or designation in the space provided. The facility is not required to complete intake data unless required by the department or rule.

C. Use the space below to list any pollutants listed in the instructions section 3.0 C. Table B which you know or have reason to believe is discharged or may be discharged from any outfall not listed in parts 3.0 A or B on Table 1. For every pollutant listed, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	3. OUTFALL(S)	4. ANALYTICAL RESULTS (INCLUDE UNITS)
No Pollutant from Table B are expected in Effluent.			

### 3.1 Whole Effluent Toxicity Testing

A. To your knowledge, have any Whole Effluent Toxicity (WET) tests been performed on the facility discharges (or on receiving waters in relation to your discharge) within the last three years?

☐ Yes (go to 3.1 B) ☒ No (go to 3.2)

#### 3.1 B

Disclose wet testing conditions, including test duration (chronic or acute), the organisms tested, and the testing results. Provide any results of toxicity identification evaluations (TIE) or toxicity reduction evaluations (TRE) if applicable. Please indicate the conclusions of the test(s) including any pollutants identified as causing toxicity and steps the facility is taking to remedy the toxicity.

### 3.2 CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported herein, above, or on Table 1 performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, telephone number, and pollutants analyzed by each laboratory or firm.) ☐ No (go to 4.0)

A. LAB NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list or group)
Pace Analytical Services, LLC.	9608 Loiret Blvd. Lenexa, KS 66219	1 (913) 599-5665	



#### 4.0 STORMWATER

##### 4.1

Do you have industrial stormwater discharges from the site? If so, attach a site map outlining drainage areas served by each outfall. Indicate the following attributes within each drainage area: pavement or other impervious surfaces; buildings; outdoor storage areas; material loading and unloading areas; outdoor industrial activities; structural stormwater control measures; hazardous waste treatment, storage, and disposal units; and wells or springs in the area.

OUTFALL NUMBER	TOTAL AREA DRAINED (PROVIDE UNITS)	TYPES OF SURFACES (VEGETATED, STONE, PAVED, ETC)	BEST MANAGEMENT PRACTICES EMPLOYED; INCLUDE STRUCTURAL BMPs AND TREATMENT DESIGN FLOW FOR BMPs DESCRIBE HOW FLOW IS MEASURED
002	23.0 ac.	Soil/Vegetation	Vegetative cover varies from 0 to 100%. Disturbed areas are vegetated as
003	108 ac.	Soil/Vegetation	soon as weather conditions allow after soil has been replaced. BMP dictate
005	49 ac.	Soil/Vegetation	keeping disturbed areas as small as possible. Settling ponds are used to
006	296 ac.	Soil/Vegetation	treat Post Mine - Stormwater runoff. Depth of flow is measured to calculate
007	151 ac.	Soil/Vegetation	flow. The above information is applicable to all outfalls.
008	16.0 ac.	Soil/Vegetation	

##### 4.2 STORMWATER FLOWS

Provide the date of sampling with the flows, and how the flows were estimated.  
Measure the depth of flow. Calculate flow from pond specific flow charts.

#### SIGNATORY REQUIREMENTS

##### 5.0 CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Philip E. Tearney - President	1 (913) 491-1717
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED
	1/23/2023

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										THIS OUTFALL IS: Alkaline mine drainage stormwater sedimentation pond - Post Mine <sup>A</sup>		OUTFALL NO. 002	
3.0 PART A - You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.													
2. VALUES													
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	3. UNITS (specify if blank)		A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.8						1*			mg/L			
B. Chemical Oxygen Demand (COD)	53.5				28.1		14##			mg/L			
C. Total Organic Carbon (TOC)	6.1						1*			mg/L			
D. Total Suspended Solids (TSS)	208				39.53		16#			mg/L			
E. Ammonia as N	<0.1						1*			mg/L			
F. Flow	VALUE 0.71		VALUE		VALUE 0.025		179#			MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 55.4		VALUE		VALUE 46.4		4#			°F			
H. Temperature (summer)	VALUE 87.8		VALUE		VALUE 82.4		20#			°F			
I. pH	MINIMUM 6.68		MAXIMUM 8.95		AVERAGE		54#			STANDARD UNITS (SU)			
3.0 PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.													
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
		CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS						
Subpart 1 - Conventional and Non-Conventional Pollutants													
A. Alkalinity (CaCO <sub>3</sub> )		X	MINIMUM					MINIMUM					
B. Bromide (24959-67-9)		X											
C. Chloride (16887-00-6)	X		3.4					2.0	13##	mg/L			
D. Chlorine, Total Residual		X											
E. Color		X											
F. Conductivity		X											
F. Cyanide, Amenable to Chlorination		X											

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease		X										
M. Phenols, Total		X										
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		196.0				77.8		14##	mg/L		
P. Sulfide (as S)		X										
Q. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		6.630				1.517		17##	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)		X										
4M. Barium, Total Recoverable (7440-39-3)	X		0.0469						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)		X										
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)		X										
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)		X										
10M. Cobalt, Total Recoverable (7440-48-4)		X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		8.340				1.577		17##	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		7.480						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		6.550				3.397		2##	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		0.0067						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				0.0046		4**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.007		3**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling January 2019.

\* = Sampling for 3.0 Part A on December 11, 2017.

\*\* = Sampling for Major Ions on May 24, 2018, additional Selenium and Thallium thru September 11, 2018.

# = Cumulative sampling from January 2016 thru December 2022.

## = Cumulative sampling from May 24, 2018 thru December 2022.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										THIS OUTFALL IS: Alkaline mine drainage stormwater sedimentation pond - Post Mine <sup>A</sup>		OUTFALL NO. 003	
3.0 PART A -- You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.													
2. VALUES													
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	3. UNITS (specify if blank)		A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.5				3.0		2*			mg/L			
B. Chemical Oxygen Demand (COD)	43.4				21.1		25#			mg/L			
C. Total Organic Carbon (TOC)	9.3				7.5		2*			mg/L			
D. Total Suspended Solids (TSS)	46.0				13.2		37#			mg/L			
E. Ammonia as N	<0.1				<0.1		2*			mg/L			
F. Flow	VALUE 0.64		VALUE		VALUE 0.062		186#			MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 66.2		VALUE		VALUE 48.2		18#			°F			
H. Temperature (summer)	VALUE 91.4		VALUE		VALUE 80.6		18#			°F			
I. pH	MINIMUM 6.79		MAXIMUM 8.98		AVERAGE		79#			STANDARD UNITS (SU)			
3.0 PART B -- Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.													
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
				CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION				MASS	
Subpart 1 -- Conventional and Non-Conventional Pollutants													
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 323.0		MINIMUM		100.2		27#	mg/L			
B. Bromide (24959-67-9)		X											
C. Chloride (16887-00-6)	X		3.4				2.2		13#	mg/L			
D. Chlorine, Total Residual		X											
E. Color		X											
F. Conductivity	X		140						1**	umhos/cm			
F. Cyanide, Amenable to Chlorination		X											

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate ( <i>as N</i> )		X										
J. Kjeldahl, Total ( <i>as N</i> )		X										
K. Nitrogen, Total Organic ( <i>as N</i> )		X										
L. Oil and Grease	X		<5.0				<5.0		11##	mg/L		
M. Phenols, Total		X										
N. Phosphorus ( <i>as P</i> ), Total (7723-14-0)		X										
O. Sulfate ( <i>as SO<sub>4</sub></i> ) (14808-79-8)	X		150.0				21.5		33#	mg/L		
P. Sulfide ( <i>as S</i> )		X										
Q. Sulfite ( <i>as SO<sub>3</sub></i> ) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		1.860				0.598		24#	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)		X										
4M. Barium, Total Recoverable (7440-39-3)	X		0.0352						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)		X										
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)		X										
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)		X										
10M. Cobalt, Total Recoverable (7440-48-4)		X										



1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		5.400				1.039		35#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		2.240						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		0.743				0.205		25#	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.011		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-68-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling January 2019.

\* = Sampling for 3.0 Part A on February 11, 2015 and December 11, 2017.

\*\* = Sampling for Major Ions on March 3, 2015, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling from February 2015 thru December 2022.

## = Cumulative sampling from January 2016 thru November 2016.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										THIS OUTFALL IS: Alkaline mine drainage stormwater sedimentation pond - Post Mine <sup>A</sup>		OUTFALL NO. 005	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.													
2. VALUES													
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	3. UNITS (specify if blank)		A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.1						1*			mg/L			
B. Chemical Oxygen Demand (COD)	39.3				20.3		13##			mg/L			
C. Total Organic Carbon (TOC)	6.8						1*			mg/L			
D. Total Suspended Solids (TSS)	76.0				20.9		15##			mg/L			
E. Ammonia as N	<0.1						1*			mg/L			
F. Flow	VALUE 0.97		VALUE		VALUE 0.032		108#			MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE		VALUE		VALUE		0#			°F			
H. Temperature (summer)	VALUE 84.2		VALUE		VALUE 83.3		3#			°F			
I. pH	MINIMUM 7.48		MAXIMUM 8.30		AVERAGE		16#			STANDARD UNITS (SU)			

3.0 PART B -- Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )		X	MINIMUM					MINIMUM			
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		2.2					1.7		10##	mg/L
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)		2. MARK "X"		3. VALUES						4. UNITS			
		A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)													
G. E. coli			X										
H. Fluoride (16984-48-8)			X										
I. Nitrate plus Nitrate (as N)			X										
J. Kjeldahl, Total (as N)			X										
K. Nitrogen, Total Organic (as N)			X										
L. Oil and Grease			X										
M. Phenols, Total			X										
N. Phosphorus (as P), Total (7723-14-0)			X										
O. Sulfate (as SO <sup>4</sup> ) (14808-79-8)		X		914.0				162.7		11##	mg/L		
P. Sulfide (as S)			X										
Q. Sulfite (as SO <sup>3</sup> ) (14265-45-3)			X										
R. Surfactants			X										
S. Trihalomethanes, Total			X										
Subpart 2 – Metals													
1M. Aluminum, Total Recoverable (7429-90-5)		X		4.670				1.038		13##	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)		X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)			X							1**	mg/L		
4M. Barium, Total Recoverable (7440-39-3)		X		0.147						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)			X										
6M. Boron, Total Recoverable (7440-42-8)		X		0.109						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)			X										
8M. Chromium III Total Recoverable (16065-83-1)		X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)			X										
10M. Cobalt, Total Recoverable (7440-48-4)			X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTR- TRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		4.090				0.940		13##	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		125.000						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		1.840				1.315		2##	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.011		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-6)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling April 2019.

\* = Sampling for 3.0 Part A on December 11, 2017.

\*\* = Sampling for Major Ions on May 24, 2018, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling from October 2017 thru December 2022.

## = Cumulative sampling from December 2017 thru December 2022.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (*use similar format*) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 006	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
2. VALUES										3. UNITS (specify if blank)	
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	3.9				3.5		2*	mg/L			
B. Chemical Oxygen Demand (COD)	121.0				18.7		73#	mg/L			
C. Total Organic Carbon (TOC)	8.0				7.5		2*	mg/L			
D. Total Suspended Solids (TSS)	62.5				9.7		97#	mg/L			
E. Ammonia as N	<0.1				<0.1		2*	mg/L			
F. Flow	VALUE 0.22		VALUE		VALUE 3.230		232#	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 62.6		VALUE		VALUE 47.3		36#	°F			
H. Temperature (summer)	VALUE 91.4		VALUE		VALUE 81.9		40#	°F			
I. pH	MINIMUM 6.56		MAXIMUM 8.96		AVERAGE		173#	STANDARD UNITS (SU)			

3.0 PART B – Mark “X” in column 2A for each pollutant you know or have reason to believe is present. Mark “X” in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK “X”		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 340.0					MINIMUM 113.3		37#	mg/L
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		3.7					2.3		29#	mg/L
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity	X		371							1**	umhos/cm
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease	X		<5.0				<5.0		5##	mg/L		
M. Phenols, Total		X										
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO <sup>4</sup> ) (14808-79-8)	X		168.0				104.3		55#	mg/L		
P. Sulfide (as S)		X										
Q. Sulfite (as SO <sup>3</sup> ) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		5.150				0.213		71#	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)		X										
4M. Barium, Total Recoverable (7440-39-3)	X		0.0352						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)		X										
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)		X										
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)		X										
10M. Cobalt, Total Recoverable (7440-48-4)		X										



1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		4.220				0.348		95#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		20.400						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		0.424				0.170		41#	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.006		3**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.007		3**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling January 2020.

\* = Sampling for 3.0 Part A on March 3, 2015 and December 11, 2017.

\*\* = Sampling for Major Ions March 3, 2015, additional Selenium and Thallium on June 27, 2018 and September 6, 2018.

# = Cumulative sampling from September 2014 thru December 2022.

## = Cumulative sampling from January 2016 thru May 2017.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										THIS OUTFALL IS: Alkaline mine drainage stormwater sedimentation pond - Post Mine <sup>A</sup>		OUTFALL NO. 007	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.													
2. VALUES													
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	3. UNITS (specify if blank)		A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	2.6						1*			mg/L			
B. Chemical Oxygen Demand (COD)	51.4				18.6		92#			mg/L			
C. Total Organic Carbon (TOC)	7.5						1*			mg/L			
D. Total Suspended Solids (TSS)	64.5				15.2		109#			mg/L			
E. Ammonia as N	<0.01						1*			mg/L			
F. Flow	VALUE 3.88		VALUE		VALUE 0.203		205#			MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 64.4		VALUE		VALUE 45.0		24#			°F			
H. Temperature (summer)	VALUE 95.0		VALUE		VALUE 84.2		23#			°F			
I. pH	MINIMUM 6.94		MAXIMUM 8.75		AVERAGE		110#			STANDARD UNITS (SU)			
3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.													
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE	B. MAXIMUM 30 DAY VALUES	C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS				
		CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION				MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants													
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 263.0				25#			mg/L			
B. Bromide (24959-67-9)		X											
C. Chloride (16887-00-6)	X		6.3			2.7	40#			mg/L			
D. Chlorine, Total Residual		X											
E. Color		X											
F. Conductivity	X		284				1**			umhos/cm			
F. Cyanide, Amenable to Chlorination		X											

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. E. coli		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease		X										
M. Phenols, Total		X										
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO <sup>4</sup> ) (14808-79-8)	X		632.0				187.4		56#	mg/L		
P. Sulfide (as S)		X										
Q. Sulfite (as SO <sup>3</sup> ) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		9.080				1.010		91##	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)		X										
4M. Barium, Total Recoverable (7440-39-3)	X		0.0461						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)		X										
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)		X										
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)		X										
10M. Cobalt, Total Recoverable (7440-48-4)		X										

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		7.180				0.7941		108#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		15.000						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		0.7020				0.1423		26#	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.0105		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling December 2022.

\* = Sampling for 3.0 Part A on February 11, 2015.

\*\* = Sampling for Major Ions March 3, 2015, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling September 2014 thru December 2022.

## = Cumulative sampling September 2019 thru December 2022.

**SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.**

You may report some or all of this information on separate sheet (use similar format) instead of completing these pages.

**FORM C TABLE 1 FOR 3.0 - ITEMS A AND B**

EFFLUENT (AND INTAKE) CHARACTERISTICS										OUTFALL NO. 008	
3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.											
2. VALUES										3. UNITS (specify if blank)	
1. POLLUTANT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	2.6						1*	mg/L			
B. Chemical Oxygen Demand (COD)	45.2				17.7		44#	mg/L			
C. Total Organic Carbon (TOC)	7.5						1*	mg/L			
D. Total Suspended Solids (TSS)	57.0				15.5		56#	mg/L			
E. Ammonia as N	<0.10						1*	mg/L			
F. Flow	VALUE 1.29		VALUE		VALUE 0.056		183#	MILLIONS OF GALLONS PER DAY (MGD)			
G. Temperature (winter)	VALUE 55.4		VALUE		VALUE 43.7		9#	°F			
H. Temperature (summer)	VALUE 89.1		VALUE		VALUE 77.2		7#	°F			
I. pH	MINIMUM 6.57		MAXIMUM 8.36		AVERAGE		57#	STANDARD UNITS (SU)			

3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity (CaCO <sub>3</sub> )	X		MINIMUM 196.0					MINIMUM 108.5		12##	mg/L
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		5.6					2.7		22#	mg/L
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity	X		284							1**	umhos/cm
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)												
G. <i>E. coli</i>		X										
H. Fluoride (16984-48-8)		X										
I. Nitrate plus Nitrate (as N)		X										
J. Kjeldahl, Total (as N)		X										
K. Nitrogen, Total Organic (as N)		X										
L. Oil and Grease		X										
M. Phenols, Total		X										
N. Phosphorus (as P), Total (7723-14-0)		X										
O. Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		1400.0				207.3		33#	mg/L		
P. Sulfide (as S)		X										
Q. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X										
R. Surfactants		X										
S. Trihalomethanes, Total		X										
Subpart 2 – Metals												
1M. Aluminum, Total Recoverable (7429-90-5)	X		8.440				1.608		43###	mg/L		
2M. Antimony, Total Recoverable (7440-36-9)	X		<0.015						1**	mg/L		
3M. Arsenic, Total Recoverable (7440-38-2)		X							1**	mg/L		
4M. Barium, Total Recoverable (7440-39-3)	X		0.0461						1**	mg/L		
5M. Beryllium, Total Recoverable (7440-41-7)		X										
6M. Boron, Total Recoverable (7440-42-8)	X		<0.100						1**	mg/L		
7M. Cadmium, Total Recoverable (7440-43-9)		X										
8M. Chromium III Total Recoverable (16065-83-1)	X		<0.005						1**	mg/L		
9M. Chromium VI, Dissolved (18540-29-9)		X										
10M. Cobalt, Total Recoverable (7440-48-4)		X										



1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES						4. UNITS			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS				
Subpart 2 – Metals (Continued)												
11M. Copper, Total Recoverable (7440-50-8)	X		<0.010						1**	mg/L		
12M. Iron, Total Recoverable (7439-89-6)	X		8.170				1.429		55#	mg/L		
13M. Lead, Total Recoverable (7439-92-1)	X		<0.010						1**	mg/L		
14M. Magnesium, Total Recoverable (7439-95-4)	X		15.000						1**	mg/L		
15M. Manganese, Total Recoverable (7439-96-5)	X		2.470				0.326		13##	mg/L		
16M. Mercury, Total Recoverable (7439-97-6)		X										
17M. Methylmercury (22967926)		X										
18M. Molybdenum, Total Recoverable (7439-98-7)		X										
19M. Nickel, Total Recoverable (7440-02-0)	X		<0.005						1**	mg/L		
20M. Selenium, Total Recoverable (7782-49-2)	X		<0.015				<0.008		2**	mg/L		
21M. Silver, Total Recoverable (7440-22-4)		X										
22M. Thallium, Total Recoverable (7440-28-0)	X		<0.020				<0.0105		2**	mg/L		
23M. Tin, Total Recoverable (7440-31-5)		X										
24M. Titanium, Total Recoverable (7440-32-6)		X										
25M. Zinc, Total Recoverable (7440-66-6)	X		<0.050						1**	mg/L		
Subpart 3 – Radioactivity												
1R. Alpha Total		X										
2R. Beta Total		X										
3R. Radium Total		X										
4R. Radium 226 plus 228 Total		X										

< = ND - Not Detected at or above adjusted reporting limit + reporting limit.

^ = Entered Post-Mine sampling December 2022.

\* = Sampling for 3.0 Part A on February 11, 2015.

\*\* = Sampling for Major Ions on March 3, 2015, additional Selenium and Thallium on June 27, 2018.

# = Cumulative sampling from September 2014 thru December 2022.

## = Cumulative sampling from February 2020 thru December 2022.

### = Cumulative sampling from September 2014 thru April 2019.

SECTION 18, RANGE 32 WEST  
SECTION 19, RANGE 32 WEST  
SECTION 24, RANGE 33 WEST  
TOWNSHIP 38 NORTH  
BATES COUNTY, MISSOURI  
WORLD AND NEW HOME QUADRANGLES  
MISSOURI-KANSAS  
7.5 MINUTE SERIES (TOPOGRAPHICAL)  
N.P.D.E.S. MAP  
MO-0138061 Jan 2023



PFI
P
WLH
WLH(PM)
WLH(PM)
W
W(PM)

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