

EXHIBITS R-1 – R-9

**O'Donnell No. 4/Manor No. 8
Treatment System Exhibits**

EXHIBIT R-1

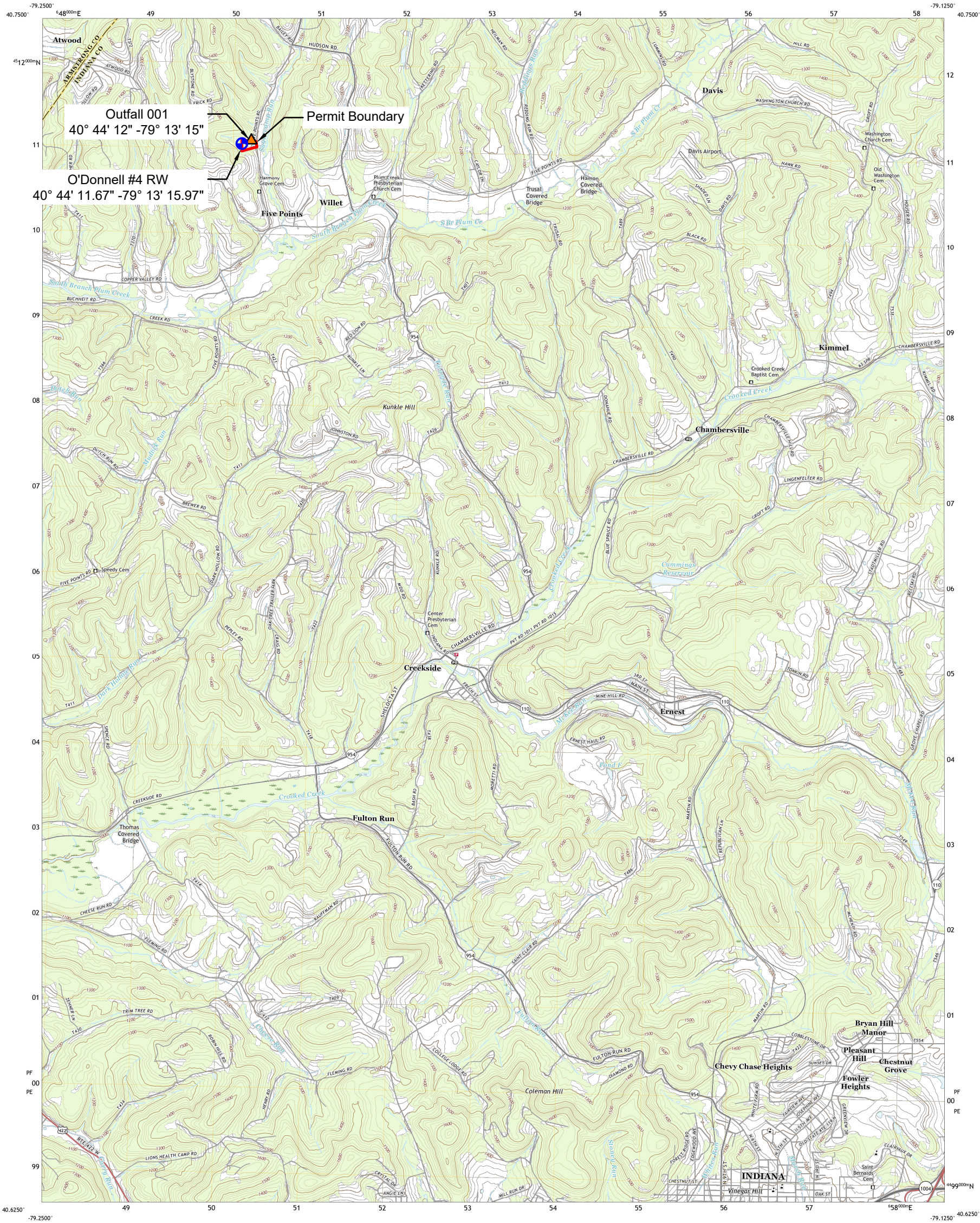
Topographic Map



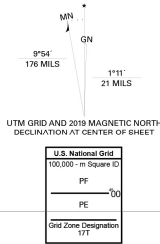
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



ERNEST QUADRANGLE
PENNSYLVANIA
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid/Universal Transverse Mercator, Zone 17T
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.
Imagery.....NAD, July 2017 - December 2017
Roads.....U.S. Census Bureau, 2016
Names.....GNIS, 1979 - 2019
Hydrography.....National Hydrography Dataset, 2004 - 2019
Contours.....National Elevation Dataset, 2010
Boundaries.....Multiple sources; see metadata file 2017 - 2018
Wetlands.....FWS National Wetlands Inventory 1977



CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18



1	2	3
4	5	6
7	8	9

ADJOINING QUADRANGLES

1 Rural Valley
2 Plumville
3 Marton Center
4 Elderton
5 Clymer
6 McIntyre
7 Indiana
8 Brush Valley



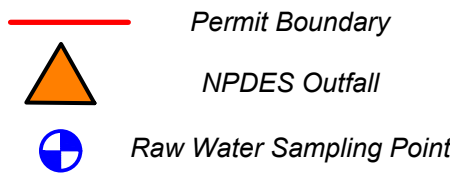
ERNEST, PA
2019



CONSOL Mining
Company LLC

O'Donnell #4 Location Map

Permit No. 32141301



SCALE:
NO SCALE

DATE:
October 17, 2022

EXHIBIT R-2

Raw Water Quality Data

Exhibit C - Vesta Raw Water Data

Permit No. 63841304

Raw Water collected as part of a CONSOL internal voluntary program

Date*	Acidity (as CaCO3) - mg/L	Alkalinity, Total (as CaCO3) - mg/L	Aluminum, Total - mg/L	Chloride - mg/L	Flow Rate - GPM	Iron, Total - mg/L	Manganese, Total - mg/L	Osmotic Pressure - mOsm/Kg	pH - SU	Sulfate - mg/L	Total Dissolved Solids - mg/L	Total Suspended Solids - mg/L	Calcium - mg/L	Magnesium - mg/L	Temperature - °C
26-Jul-2017	87.20	235.00	1.95	8.22	N/A	120.00	2.37	-	N/A	244.00	644.00	36.00	N/A	N/A	N/A
7-Jan-2019	-	56.90	-	0.34	7.00	0.34	0.15	-	6.30	-	92.00	-	N/A	N/A	5.90
4-Feb-2019	-	81.20	-	-	2.00	0.87	0.54	-	6.00	-	158.00	-	N/A	N/A	11.10
4-Mar-2019	-	69.80	-	0.39	3.00	0.39	0.33	-	6.10	-	118.00	-	N/A	N/A	4.20
15-Apr-2019	-	73.40	-	2.06	3.00	5.67	0.33	-	6.00	-	86.00	-	N/A	N/A	9.30
22-May-19	-	76.40	-	2.96	2.50	3.10	0.47	-	7.00	-	106.00	-	29.10	4.98	12.40
7-Jun-2019	-	75.50	-	-	3.00	0.96	0.41	-	7.00	-	156.00	-	28.60	4.92	12.80
31-Jul-2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9-Aug-2019	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13-Sep-2019	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20-Sep-2019	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Oct-2019	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18-Dec-2019	-	47.60	0.17	-	6.00	0.37	0.05	-	6.80	18.00	116.00	-	20.10	4.00	10.20
14-Jan-2020	-	52.60	-	-	8.00	0.19	0.08	-	7.00	-	100.00	-	22.30	4.26	11.00
18-Feb-2020	20.30	77.80	-	0.35	8.00	0.35	0.18	-	7.20	16.60	118.00	-	23.20	4.46	13.40
4-Mar-2020	-	20.00	0.34	-	20.00	0.56	0.04	-	7.50	-	70.00	-	18.30	3.42	11.30
1-Apr-2020	-	46.80	-	-	15.00	0.55	0.05	-	6.70	18.00	88.00	-	18.00	3.58	10.40
19-Jul-2022	29.40	180.00	-	3.10	25.00	1.94	0.87	-	7.40	46.00	258.00	23.00	39.30	8.93	22.30
9-Aug-2022	33.80	257.00	-	3.52	25.00	5.95	0.82	-	7.10	81.00	320.00	11.00	53.40	11.30	17.80
Average	12.19 <i>All 0's for Acidity were less than 20 mg/L</i>	96.43 <i>All 0's for Aluminum were less than 0.16 mg/L</i>	0.18 <i>All 0's for Chloride were less than 2 mg/L</i>	1.42	7.08	10.09	0.48 <i>All 0's for OP were less than 20 mOsm/Kg</i>	-	6.78	30.26 <i>All 0's for Sulfate were less than 10 mg/L</i>	173.57 <i>All 0's for TSS were less than 5 mg/L</i>	5.00	28.03	5.54	11.70

*Note: Dates are provided as a reference. Different analytes may have been analyzed within one or two dates of the date shown.

EXHIBIT R-3

NPDES Permit

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF DISTRICT MINING OPERATIONS**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
INDIVIDUAL PERMIT**

NPDES PERMIT NO.: PA0235890 PERMITTEE NAME: Consol Mining Company LLC
MINING PERMIT NO.: 32141301 OPERATION NAME: O'Donnell No.4/Manor No. 8
Treatment System
MUNICIPALITY: Washington COUNTY: Indiana

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq., the Department of Environmental Protection (Department) hereby approves the discharge to the following surface water(s):

Outfall 001 – Unnamed Tributary to Sugarcamp Run

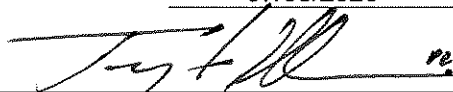
subject to all effluent limitations, monitoring and reporting requirements and other terms, conditions, criteria, and special requirements for the discharge as defined in this permit, to surface waters of the Commonwealth. This permit is issued pursuant to the authority in 25 Pa. Code Chapter 92a and is subject to the requirements of 25 Pa. Code Chapter 92a.

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.
2. Failure to comply with the terms, conditions, or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 40 CFR 122.41(a)
3. A complete application for renewal or reissuance of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. 40 CFR 122.41(b) 122.41(d). In the event that a timely and complete application for renewal or reissuance has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. 25 Pa. Code 92a.7.
4. The permit may be terminated prior to the expiration date upon notice to and approval by the Department.
5. No condition of this permit shall release the operator from any responsibility or requirement under Pennsylvania, or Federal environmental statutes, and regulations or local ordinances.
6. This permit is subject to the requirements of the mining permit referenced above.

PERMIT ISSUANCE DATE: JAN 21 2021 PERMIT EFFECTIVE DATE: FEB 01 2021
PERMIT AMENDMENT ISSUANCE DATE: _____ PERMIT AMENDMENT EFFECTIVE DATE: _____
PERMIT EXPIRATION DATE: 07/06/2025 ORIGINAL PERMIT ISSUANCE DATE: 07/07/2010

AUTHORIZED BY:



Samuel Faith, District Mining Manager
California District Mining Office

Fo2

PART A
EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

CMAF # 32141301

NPDES # PA0235890

1. MINE DRAINAGE TREATMENT FACILITIES

a. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL: 001

DISCHARGE TO: Unnamed Tributary to Sugarcamp Run

FROM: Passive treatment system

LAT: 40° 44' 12"

LONG: -79° 13' 15"

Based on the hydrologic data and anticipated wastewater characteristics and flows described in the permit application and its supporting document and/or revisions, the following effluent limitations and monitoring requirements apply to the subject outfall from **PERMIT EFFECTIVE DATE** to **PERMIT EXPIRATION DATE**:

Discharge Parameter		DISCHARGE LIMITATIONS ^{b.c.}					MONITORING REQUIREMENTS	
		Annual Average	Minimum	Average Monthly	Maximum Daily	Instant Maximum	Measurement Frequency	Sample Type
Flow	(mgd)		-	-	-	REPORT	2/month	measured
Iron	(mg/l)		-	1.5	3.0	3.75	2/month	grab
Manganese	(mg/l)		-	1.0	2.0	2.5	2/month	grab
Aluminum	(mg/l)		-	0.75	0.75	0.75	2/month	grab
Suspended Solids	(mg/l)	1534 (lbs/yr)	-	35	70	90	2/month	grab
pH	(s.u.)		6.0	-	-	9.0	2/month	grab
Alkalinity, Total as CaCO ₃	(mg/l)		-	-	-	REPORT	2/month	grab
Acidity, Total as CaCO ₃	(mg/l)		-	-	-	REPORT	2/month	grab
Alkalinity, Net	(mg/l)		0.0	-	-	-	2/month	calculated
Osmotic Pressure	(mOs/kg)		-	50	50	50	2/month	grab
Total Dissolved Solids	(mg/l)		-	-	-	REPORT	2/month	grab
Sulfate	(mg/l)		-	-	-	REPORT	2/month	grab
Chloride	(mg/l)		-	-	-	REPORT	2/month	grab

- ☐ This permit establishes effluent limitations in the form of implemented BMPs identified in the associated E&S Plan, Reclamation Plan and NPDES application for this permit. These BMPs restrict the rates and quantities of associated pollutants from being discharged into surface waters of the Commonwealth. The following BMPs apply:

- ☐ Oversized sediment basin (8600 ft³/ac or greater) ☐ Sediment basin ratio of 4:1 or greater (flow length:basin width)
☐ Sediment basin with 4-7 day detention ☐ Alternate/additional sediment controls during basin construction
☐ Flocculants ☐ Manual dewatering device ☐ Vegetated Riparian buffers ☐ Street sweeping
☐ Channels, collectors and diversions lined with permanent vegetation, rock, geotextile or other non-erosive materials
☐ Water reuse ☐ Sediment traps with infiltration trench ☐ Diversions ☐ Constructed wetlands ☐ Vegetated swales
☐ Manufactured devices ☐ Bio-retention ☐ Mulch immediately after top-soiling ☐ Land Preservation or non-use.

- b. Parameters subject to 24-hour, non-compliance reporting for limitations under B.2.(l)(6) of this permit are specified above.
- c. Samples taken in compliance with the monitoring requirements specified above shall be taken at the end of the discharge pipe when discharging.

Additional Requirements for Part A
(applicable to all outfalls, under all precipitation conditions)

1. pH must be between 6.0 and 9.0 at all times.
2. Alkalinity must be greater than acidity at all times.
3. Samples collected to comply with the monitoring requirements shall be taken while the facility is discharging at the outfall points listed above. The monitoring requirement frequencies apply to both continuous and non-continuous discharges; therefore, sampling is required in every month during which a discharge occurs. A monitoring report of "no discharge" should only be used to indicate that there was no discharge during the entire reporting period.
4. The discharger may not discharge floating materials, scum, sheen, or substances that result in deposits in the receiving water. Except as provided in the permit, the discharger may not discharge foam, oil, grease, or substances that produce an observable change in the color, taste, odor, or turbidity of the receiving water. [25 Pa. Code § 92a.41(c)]
5. The permittee shall not discharge oil and grease in such quantities "as may be harmful" pursuant to Section 311(b)(4) of the CWA and further defined in 40CFR 110.3(a)(b) to not violate applicable water quality standards; or cause a film or sheen upon or discoloration of the surface of the water or adjoining shoreline or cause a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.
6. The permittee may not discharge substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. [25 Pa. Code § 93.6(a)]
7. The measurement frequency specified is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.
8. The permittee shall provide analysis of samples collected from any new outfall no later than two years after the initial discharge of each facility in compliance with 40 CFR 122.21(k)(5)(vi). Specifically, sampling results are required for the pollutants listed in 40 CFR 122, Appendix D, Table III (Report All), and for Appendix D, Tables II and IV those that are expected to be present. This quantitative data requirement is subject to the small business exemption at 40 CFR 122.21(g)(8) for Tables II and IV.
9. The permittee shall provide an updated analysis of samples collected from all outfalls for the parameters listed in 40 CFR 122, Appendix D, Tables III and IV in compliance with 40 CFR 122.21 (G)(7) with the application for renewal. An analysis of all samples should be submitted of all parameters in Appendix D, Tables II and IV that are expected to be present. This quantitative data requirement is subject to the small business exemption at 40 CFR 122.21(g)(8) for Tables II and IV.
10. The Department reserves the right to reopen and modify this permit if, at any time, information becomes available that demonstrates that the established controls do not attain or maintain water quality criterion.

Mandated Standard Conditions for NPDES Permits

1. Definitions

The following definitions apply within this permit. Reference citations are given from sections of 40 CFR as noted which have been adopted by reference in 25 Pa. Code Chapter 92a.

- (a) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. [122.41(m)(1)(i)]
- (b) "Severe property damage" means 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. [122.41(m)(1)(ii)]
- (c) "Average monthly" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. [122.2]
- (d) "Maximum daily" discharge limitation means the highest allowable "daily discharge." [122.2]
- (e) "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "Daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. [122.2]
- (f) "Average" refers to the use of an arithmetic mean, unless otherwise specified in this permit. [122.41(l)(4)(iii)]
- (g) "Instantaneous Maximum" means the highest allowable discharge of a concentration or mass at any one time as measured by a grab sample. [92a.2]
- (h) "Composite Sample" means a combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval (for constant volume samples) is proportional to the flows rates, over the time period used to produce the composite.

The maximum time period between individual samples shall not exceed two hours, except that for wastes of a uniform nature the samples may be collected on a frequency of at least twice per working shift and shall be equally spaced over a 24-hour period (or over the operating day if flows are of a shorter duration).
- (i) "Grab Sample" means an individual sample collected at a randomly-selected time over a period not to exceed 15 minutes.
- (j) "Measured Flow" means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
- (k) "At Outfall XXX" means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line XXX, or where otherwise specified.
- (l) "Estimate" means to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to pump capabilities, water meters and batch discharge volumes.
- (m) "Toxic Pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act. [122.2]
- (n) "Hazardous Substance" means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. [122.2]
- (o) "Best Management Practices" ("BMPs") are activities, facilities, measures, or procedures used to protect and maintain the quality of waters, and existing and designated uses within this Commonwealth. BMPs include E&S Plans,

Reclamation Plans, Storm Water Management Act Plans, and other treatment requirements, operating procedures, and practices to control project site runoff, spillage or leaks, and other drainage from the mining activity.

- (p) "Erosion and Sediment Control Plan" ("E&S Plan") is a site-specific plan included with the mining permit or authorization application identifying BMPs to minimize accelerated erosion and sedimentation and which meets the requirements of 25 Pa. Code Chapter 102.
- (q) "Point Source" means a discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, CAAP, CAFO, landfill leachate collection system, or vessel or other floating craft from which pollutants are or may be discharged. [25 Pa. Code 92a.2]
- (r) "Operator" means a person or entity conducting mining activity that is covered by this permit. The operator name must match the "Permittee" in relation to their mining permit or exploration activity approval and also that of "Operator" in the associated mine operator's license.
- (s) "Reclamation Plan" means approved documentation made part of a permit or exploration notice that describes how the permittee will restore the land surface as required by the appropriate regulations to meet an approved post-mining land use. This plan includes activities such backfilling, regrading, soil stabilization, and revegetation. Once the permittee completes the reclamation plan, reclamation bond(s) may be released for a permitted mine site.
- (t) "Stormwater" means surface runoff and drainage resulting from precipitation events, including ice and snowmelt runoff. [122.26(b)(13)]
- (u) "Dry weather flow" means the base flow or surface discharge from an area or treatment facility which occurs immediately prior to a precipitation event and which resumes 24 hours after the precipitation event ends. [25 Pa. Code §§ 87.1, 88.1, 89.1, and 90.1]
- (v) "Upset" means 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. [122.41(n)(1)]

2. Standard Federal Conditions

40 CFR Sections 122.41 and 122.42 require that the following conditions are applied to all permits.

(a) *Duty to comply.* [92a.41(a)(1) and 122.41(a)] The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the 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.

(2) The 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. Section 309(d) of the CWA, 33 U.S.C. § 1319(d), provides that any person who violates Section 301 of the CWA, 33 U.S.C. § 1311, or violates any permit condition or limitation in a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342, shall be subject to a civil penalty payable to the United States of up to \$25,000 per day for each violation, which, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, and the subsequent Civil Monetary Penalty Inflation Adjustment Rule, 40 C.F.R. Part 19, was increased to \$32,500 per day for each violation occurring on or after March 15, 2004, and \$37,500 per day for each violation occurring on or after January 12, 2009. The 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 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 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 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 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 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.

(3) Any person may be assessed an administrative penalty by the Administrator 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.

(b) *Duty to reapply.* [92a.41(a)(2) and 122.41(b)] 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.

(c) *Need to halt or reduce activity not a defense.* [92a.41(a)(3) and 122.41(c)] 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.

(d) *Duty to mitigate.* [92a.41(a)(4) and 122.41(d)] 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.

(e) *Proper operation and maintenance.* [92a.41(a)(5) and 122.41(e)] 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.

(f) *Permit actions.* [92a.41(a)(6) and 122.41(f)] This permit may be modified, revoked and reissued, or terminated for cause. 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.

(g) *Property rights.* [92a.41(a)(7) and 122.41(g)] This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) *Duty to provide information.* [92a.41(a)(8) and 122.41(h)] 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.

(i) *Inspection and entry.* [92a.41(a)(9) and 122.41(i)] The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department or EPA), upon presentation of credentials and other documents as may be required by law, to:

(1) 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 this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

(j) Monitoring and records. [92a.41(a)(10) and 122.41(j)]

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five 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 this permit, and records of all data used to complete the application for this permit, for a period of at least 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.

(3) 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, including detection limits; and
- (vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR subchapters N or O.

(5) The 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 this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 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 4 years, or both.

(k) Signatory requirement. [92a.41(a)(11) and 122.41(k)]

(1) All applications, reports, or information submitted to the Department shall be signed and certified. (See § 122.22)

(2) The CWA 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 6 months per violation, or by both.

(l) Reporting requirements [92a.41(a)(12) and 122.41(l)]

(1) *Planned changes.* The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only 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 § 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 § 122.42(a)(1).

- (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;

(2) *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.

(3) *Transfers.* This permit is not transferable to any person except after notice to the Department. 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 Clean Water Act. (See § 122.61; in some cases, modification or revocation and reissuance is mandatory.)

(4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

- (i) Monitoring results must be reported on a DMR or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

- (ii) If the permittee monitors any pollutant more frequently than required by 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 reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

- (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

- (iv) Monitoring results obtained each month shall be summarized for that month and reported on a DMR.

- (v) The DMR shall be submitted quarterly within 28 days after the end of the quarter to the appropriate District Mining Office unless submitting DMRs electronically.

(5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) *Twenty-four hour reporting.*

- (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 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.

- (ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See § 122.44(g)).

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours. (See § 122.44(g).)

- (iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (i)(6)(ii) of this section if the oral report has been received within 24 hours.

(7) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under paragraphs (l) (4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(6) of this section.

(8) *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.

(9) *Electronic Reporting* The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit - see <https://www.dep.pa.gov/Business/Land/Mining/Pages/Electronic-Submission-Of-eDMRs-For-Mining.aspx>. Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration forms to DEP's Bureau of Mining Programs Division of Permitting and Compliance within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

(m) *Bypass* [92a.41(m) and 122.41(a)(13)]

(1) *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 (2) and (3) below.

(2) *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 ten days before the date of the bypass.

(ii) *Unanticipated bypass.* The permittee shall submit notice of an unanticipated bypass as required in paragraph (l)(6) of this section (24-hour notice).

(3) *Prohibition of bypass.*

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(B) 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

(C) The permittee submitted notices as required under paragraph (2)(i-ii) 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 conditions listed above in paragraph (m)(3)(i) of this section.

(n) *Existing manufacturing, commercial, mining, and silvicultural dischargers.* [92a.42 and 122.42(a)]

In addition to the reporting requirements above, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(1) That any 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":

(i) One hundred micrograms per liter (100 µg/l);

- (ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
- (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with § 122.21(g)(7); or
- (iv) The level established by the Department in accordance with § 122.44(f).

(2) That 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":

- (i) Five hundred micrograms per liter (500 µg/l);
- (ii) One milligram per liter (1 mg/l) for antimony;
- (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with § 122.21(g)(7).
- (iv) The level established by the Department in accordance with § 122.44(f).

3. Standard State Conditions

(a) All discharges authorized by the NPDES permit shall be consistent with the terms and conditions of the permit; that facility expansions, production increases or process modifications which result in new or increased discharges of pollutants shall be reported by submission of a new application or, if the discharge does not violate effluent limitations specified in the NPDES permit, by submission to the Department of notice of the new or increased discharges of pollutants, that the discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by the permit shall constitute a violation of the terms and conditions of the permit.

(b) The permittee must comply with applicable water quality standards, including the narrative standards found at 25 Pa. Code § 93.6.

(c) The permittee shall comply with the immediate oral notification requirements of 25 Pa. Code § 91.33 (relating to incidents causing or threatening pollution). Oral notification is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the incident causing or threatening pollution. The written submission must conform to the requirements of 40 CFR 122.41(l)(6). [92a.41(b)]

4. Preparedness, Prevention and Contingency (PPC) Plans

(a) Persons subject to this permit shall maintain a Preparedness, Prevention and Contingency (PPC) plan.

(b) The permittee shall periodically review, update and amend the PPC Plan at least once a year and whenever the information submitted in the plan is no longer accurate.

(c) The permit does not authorize the discharge of any polluting substances resulting from an on-site spill. Such spills shall be controlled through proper implementation of a PPC Plan.

(d) This permit does not authorize any discharge (stormwater or non-stormwater), which contains any pollutant that may cause or contribute to an impact on aquatic life or pose a substantial hazard to human health or the environment due to its quantity or concentration.

(e) Operator personnel shall conduct site compliance evaluations using the Annual Inspection Form at least once a year. All areas shall be visually inspected for evidence of, or the potential for pollutants entering the drainage system. Measures to reduce pollutant loading shall be evaluated to determine whether they are adequate, and property implemented in accordance with the terms of this permit or whether additional control measures are needed. Stormwater management measures, E&S plan measures and other structural pollution prevention measures shall be observed to ensure that they are operating correctly. The PPC Plan shall be revised as needed within 15 days of such inspection with implementation of any changes occurring not more than 90 days after the inspection.

NPDES INDIVIDUAL PERMIT CONDITIONS

1. Operation and Maintenance of Erosion and Sedimentation Plan
 - a. The permittee shall implement the erosion and sedimentation plan contained in Module 11 and approved under Coal Mining Activity Permit Number 32141301.
 - b. The permittee shall be responsible for the inspection, maintenance, and repair of the erosion and sedimentation control BMPs to ensure that the proposed system continues to function as designed until final bond release occurs for the mine site.
 - c. All BMPs shall be inspected by the responsible entity on a regularly scheduled basis and, at minimum, once a quarter and after all major storm events (greater than 0.5 inch in 24 hours). A qualified representative of the operator must perform inspections of the facilities. The inspections shall determine the operational condition, safety, and the effectiveness of the BMP. Based on the inspection results, an inspection report shall generate a listing of maintenance needs or repairs required. The permittee shall keep a listing of the repairs needed and a schedule for corrective action. Corrective actions shall be performed within the schedule. Written records shall be kept of all inspections and maintenance work performed related to the discharge management facilities.
 - d. The permittee is responsible to renew this NPDES permit until such time that the area is stabilized, and no further earth disturbance will occur.
2. Special Condition
 - a. The permittee shall conduct one sample analysis for Cyanide at Outfall 001 within 90 days of permit issuance using the test method as below. If the concentration of cyanide in the discharge exceeds 2.6 µg/L, permittee will continue sampling for cyanide for six samples twice per month at the outfall, upstream and downstream of the outfall. Once six (6) sample analyses are collected at each location then the data and lab sheets shall be submitted to the addresses below. If the reasonable potential analysis indicates that effluent limitations are required for cyanide, then DEP will issue a department-initiated amendment. The permittee shall continue sampling the outfalls for cyanide present above ½ the criterion, twice per month until notified by DEP staff by letter that sampling is no longer required.

Constituent	Criterion Level (µg/L)	Target Quantitative Level (µg/L)	Approved Test
Cyanide	2.6	10	335.4

Environmental Group Manager
California District Mining
25 Technology Drive
Coal Center, PA 15423

- b. The permittee shall conduct one sample analysis for Bromide at Outfall 001 within 90 days of permit issuance using the test method as below. The data and lab sheet shall be sent to the Environmental Group Manager at the address as above.

Constituent	Concentration Level (mg/L)	Approved Test
Bromide	10	9211& EPA 300.0

EXHIBIT R-4

Treatment Flow Diagram

Legend



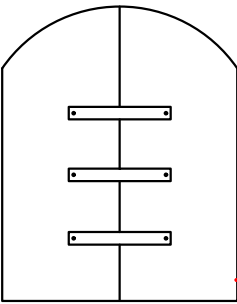
PVC Line



Wetland Berm

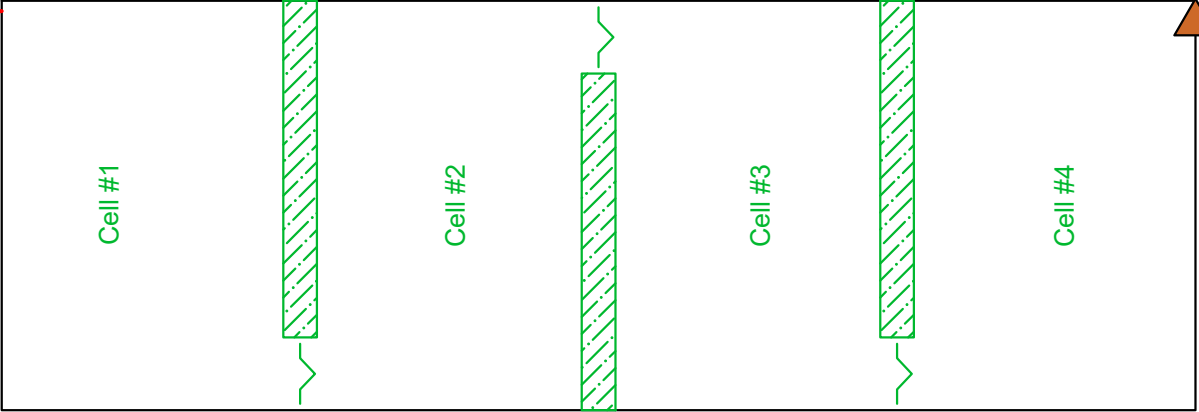


Wetland Flow Direction



O'Donnell #4
Sealed Mine Drift

3" Pipeline



O'Donnell #4 Wetland

Outfall 001
Unnnamed Tributary to
Sugarcamp Run



CONSOL Mining Company
LLC

1000 Consol Energy Drive
Suite 100
Canonsburg, PA 15317

O'Donnell #4 Flow Diagram
Permit No: 32141301

Scale:
NO SCALE

Date:
July 11, 2021

Drawing No:
EXHIBIT A - Plant Flow
Diagrams

EXHIBIT R-5

Rights of Entry

**Table of Contents for the Access Documents
O'Donnell No. 4 Treatment System**

Parcel Number (Part or Whole)	Current Owner (As of Effective Date)	Description	Consent to Right of Entry Obtained?
39-006-120	HOUSER MARK M UX	3 rd Party	Access Agreement

APPL. NO. (Department Use Only)

CONTRACTUAL CONSENT OF LANDOWNER

(I) (We), the undersigned, being the owner(s) of 100.86 acres of land located in Washington Indiana County, as
(Township, Borough, City)
described in the deed(s) recorded in the Recorder of Deeds Office Book(s) and page(s)
818/349 and shown by crosshatched lines on the
map attached hereto which is signed in the original by the landowner upon which
O'Donnell Coal Company proposes to engage in surface
(Name of Mining Operator)

mining activities for which application for permit will be made to the Department of Environmental Resources and of which application this consent will be made a part, **DO HEREBY ACKNOWLEDGE THAT THE MINING OPERATOR HAS THE RIGHT TO ENTER UPON AND USE THE LAND FOR THE PURPOSES OF CONDUCTING MINING ACTIVITIES.** Furthermore, (I) (We), the undersigned, do hereby irrevocably grant to the Mining Operator and the Commonwealth of Pennsylvania, the right to enter upon the aforesaid land before beginning the mining activity(ies), during the mining activity(ies) and for a period of five (5) years after the completion or abandonment of the mining activity(ies) for the purposes of inspecting, studying, backfilling, planting and reclaiming the land and abating pollution in accordance with the provisions of the Surface Mining Conservation and Reclamation Act, The Clean Streams Law, and The Coal Refuse Disposal Act, as amended, rules and regulations promulgated thereunder, and the provisions of permit(s) issued to the Mining Operator. (I) (We) do hereby grant in addition to the Commonwealth, for the aforesaid period of time, a right of entry across any adjoining or contiguous lands owned by (us) (me) in order to have access to the land described herein. It is specifically agreed and understood that this contractual consent gives the Commonwealth the right to enter, inspect, study, backfill, plant and reclaim the land and abate pollution therefrom as a matter within the police power but does not obligate the Commonwealth to do so, and does not constitute any ownership interest by the Commonwealth in the aforesaid land.

This Consent shall not be construed to impair any contractual agreement between the Mine Operator and the landowner.

(INSERT ADDITIONAL PROVISIONS OR CROSS OUT)

/ / / / /

In witness whereof and intending to legally bind (myself) (ourselves), (my) (our) heirs, successors and assigns, (I) (we) have hereunto set (my) (our) hand(s) and seal this 1ST day of MAY, 19 86.

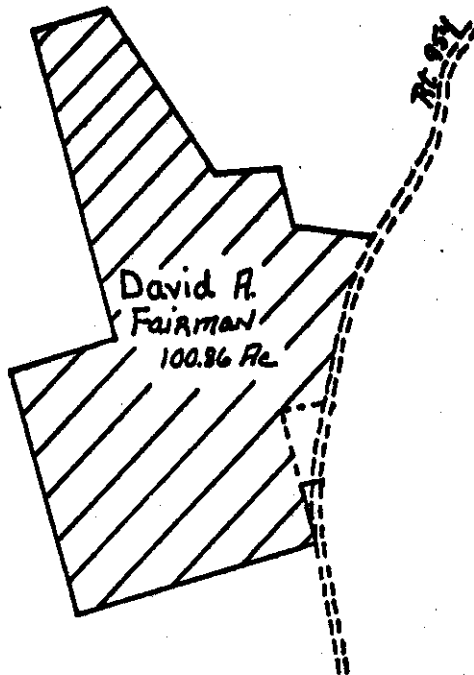
David A. Fairman
LANDOWNER (Print Name)

By: David A. Fairman
(Signature) (Seal)

David A. Fairman
(Print Name)

By: Thomas Fairman
(Signature)

THOMAS FAIRMAN
(Print Name)



9525
 RECORDS OFFICE
 INDIANA CO. P.M.
 DONALD B. SHANK, RECORDER
 MAY 28 2 25 PM '86
 TAX AND FEES 13.50
 STAMP - STATE _____
 STAMPS _____

COMMONWEALTH OF PENNSYLVANIA } SS:
 COUNTY OF Indiana

On this the 1 day of MAY, 1986,
 before me, a Notary Public, personally appeared
David A. Fairman THOMAS FAIRMAN
 known to me to be the person(s) whose name(s)
~~are~~ subscribed to the within instrument, and
 acknowledged that ~~they~~ executed the same for
 the purposes therein contained.
 IN WITNESS WHEREOF, I hereunto set my hand
 and official seal.

Larry Stettin
 Notary Public
 MY COMMISSION EXPIRES NOV 1987

EXHIBIT TO "SUPPLEMENTAL C"
 DEPARTMENT OF ENVIRONMENTAL RESOURCES

Landowner: David A. Fairman
 Township: Washington County: Indiana

Signature(s): David A. Fairman
David A. Fairman
Thomas Fairman
 THOMAS FAIRMAN

Date: 1 MAY 86

ACKNOWLEDGEMENT OF INDIVIDUALS OR PARTNERS

LAND OWNER

STATE OF Pennsylvania :

SS

COUNTY OF Indiana :

BOOK 893 PAGE 487

On MAY 1 1986, before me, the undersigned Notary, personally appeared

David A. Fairman, THOMAS FAIRMAN
(Name(s))

known to me (or satisfactorily proven) to be the person whose name is subscribed to this instrument, and who acknowledged that they
(he, she or they)

executed the same and desires it to be recorded.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

(SEAL)

[Signature]
Notary Public

My Commission Expires: NOV 1986
(date)

ACKNOWLEDGEMENT OF CORPORATIONS

LAND OWNER

STATE OF :

SS

COUNTY OF :

On _____, before me, the undersigned Notary, personally appeared

who acknowledged (herself) (himself) to be the _____ of
(Title of Person)

(Name of Corporation)

corporation, and the (s)he, as such officer, being authorized to do so, executed the foregoing instrument on behalf of the said corporation and desires that this instrument be recorded.

IN WITNESS WHEREOF, I have hereunder set my hand and official seal.

(SEAL)

Notary Public

My Commission Expires: _____
(date)

This instrument has been recorded in Indiana
County, Pennsylvania, this 28th day of May,
19 86, at Book 893, Page (s) 485.

David A. Fairman
(Signed) * (Print Name)

(Sealed)

[Signature]
[Signature]

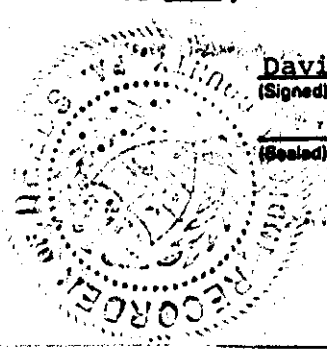


EXHIBIT R-6

AMDTreat Cost Worksheets



AMDTREAT

AMD TREAT**Costs****AMD TREAT MAIN COST FORM**

<u>Passive Treatment</u>	<u>A</u>	<u>S</u>	
Vertical Flow Pond			\$0
Anoxic Limestone Drain			\$0
Anaerobic Wetlands			\$0
Aerobic Wetlands			\$0
Manganese Removal Bed			\$0
Oxic Limestone Channel			\$0
Limestone Bed			\$0
BIO Reactor			\$0
Passive Subtotal:			\$0
Active Treatment			
Caustic Soda			\$0
Hydrated Lime			\$0
Pebble Quick Lime			\$0
Ammonia			\$0
Oxidants			\$0
Soda Ash			\$0
Active Subtotal:			\$0
Ancillary Cost			
Ponds			\$0
Roads			\$0
Land Access			\$0
Ditching			\$0
Engineering Cost			\$0
Ancillary Subtotal:			\$0
Other Cost (Capital Cost)			\$0
Total Capital Cost:			\$0
Annual Costs			
Sampling	1	0	\$5,889
Labor	1	0	\$2,275
Maintenance	1	0	\$2,055
Pumping			\$0
Chemical Cost			\$0
Oxidant Chem Cost			\$0
Sludge Removal			\$0
Other Cost (Annual Cost)			\$323
Land Access (Annual Cost)			\$0
Total Annual Cost:			\$10,542
Other Cost	1	0	

Water Quality

Design Flow	7.08	gpm
Typical Flow	7.08	gpm
Total Iron	10.09	mg/L
Ferrous Iron	10.09	mg/L
Aluminum	0.18	mg/L
Manganese	0.48	mg/L
pH	6.78	su
Alkalinity	96.43	mg/L
TIC	33.91	mg/L

- ☐ Calculate Net Acidity
☒ Enter Hot Acidity manually

Acidity	12.19	mg/L
---------	-------	------

Sulfate	30.26	mg/L
Chloride	1.42	mg/L
Calcium	28.03	mg/L
Magnesium	5.54	mg/L
Sodium	0.00	mg/L
Water Temperature	11.70	C
Specific Conductivity	0.00	uS/cm
Total Dissolved Solids	173.57	mg/L
Dissolved Oxygen	0.01	mg/L
Typical Acid Loading	0.1	tons/yr

Total Annual Cost: per
1000 Gal of H2O Treated \$2.830

Project Global TrustSite Name O'Donnell #4 REV3

AMDTREAT

**AMD TREAT
SAMPLING**Sampling Name O'Donnell #4 Sampling☒ **Estimate Sampling Cost**1. Unit Labor Cost \$/hr2. Collection Time per Sample hours/sample3. Travel Time hr4. Sample Frequency samples/mo5. Lab Cost Per Sample \$/sample6. Number of Sample Points points☐ **Enter Established Annual Sampling Cost**7. Actual Annual Sampling Cost \$**Sampling Sub-Totals**8. Yearly Sample Analysis Cost \$9. Yearly Travel Cost \$10. Yearly Collection Cost \$11. Sampling Cost \$

Record Number 1 of 1

Company Name CONSOL Mining Company LLC

Printed on 03/07/2023

Project Global Trust

Site Name O'Donnell #4 REV3



AMDTREAT

AMD TREAT

LABOR

Labor Name O'Donnell #4 Labor

☒ **Estimate Labor Cost**

1. Site Visits per Week

2. Site Labor Time per Visit hours

3. Travel Time per Visit hours

4. Unit Labor Cost \$/hour

☐ **Enter Established Annual Labor Cost**

5. Actual Annual Labor Cost \$

6. Total Cost \$

Record Number 1 of 1

Company Name CONSOL Mining Company LLC

Printed on 03/20/2023

Project Global Trust

Site Name O'Donnell #4 REV4



AMDTREAT

AMD TREAT

MAINTENANCE

☐ Estimate Maintenance Cost

1. Percent of Active Cost %
2. Percent of Passive Cost %
3. Percent of Ancillary Cost * %
4. Percent of Other Capital Cost %

☒ Enter Established Annual Maintenance Cost

5. Annual Maintenance Cost \$

Maintenance Sub-Totals

- 6 Total Maintenance Active Cost \$
7. Total Maintenance Passive Cost \$
8. Total Maintenance Ancillary Cost \$
9. Total Maintenance Other Capital Cost \$
10. Total Maintenance Cost \$

* Ancillary Cost does not include Cost for
Land Access and Engineering Cost

Company Name CONSOL Mining Company LLCProject Global TrustSite Name O'Donnell #4 REV4**AMDTREAT**

AMD TREAT OTHER COST

Other Cost Name

A.

B.

C.

D.

E.

Description of Item

Unit Cost
Per Item

Quantity

Total
Item CostCapital Cost
Annual Cost

1. Maintenance based off 2% of Total Capital Cost from Recapitalization Cost Sheet	323.00	1	323	☐ Capital Cost ☒ Annual Cost
2.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
3.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
4.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
5.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
6.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
7.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
8.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
9.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
10.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
11.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
12.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
13.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
14.	0.00	0	0	☒ Capital Cost ☐ Annual Cost
15.	0.00	0	0	☒ Capital Cost ☐ Annual Cost

Record Number

1 of 1

Current Capital Cost \$Current Annual Cost \$Total Capital Cost \$Total Annual Cost \$

EXHIBIT R-7

AMDTreat Recapitalization Worksheet

Company Name CONSOL Mining Company LLC

Printed on 07/13/2022

Project Global TrustSite Name O'Donnell #4 REV2

AMD TREAT RECAPITIALIZATION COST

AMD TREAT

 Calculation Period yrs Inflation Rate % Net Return Rate %
Recapitalization Name

A.	B	C	D	E	F	G
Description of Item	Unit Cost Per Item	Quantity	Total Item Cost	Life Cycle	Number of Periods	Total PV
1. O'Donnell #4 Wetland	5,503	1	5,503	15	5	4,759
2. Sludge Removal	10,000	1	10,000	15	5	8,648
3. Main Pipeline	401	1	401	10	7	594
4. Weir Plate	250	1	250	15	5	216
5.	0	0	0	0	0	0
6.	0	0	0	0	0	0
7.	0	0	0	0	0	0
8.	0	0	0	0	0	0
9.	0	0	0	0	0	0
10.	0	0	0	0	0	0
11.	0	0	0	0	0	0
12.	0	0	0	0	0	0
13.	0	0	0	0	0	0
14.	0	0	0	0	0	0
15.	0	0	0	0	0	0
16.	0	0	0	0	0	0
17.	0	0	0	0	0	0
18.	0	0	0	0	0	0
19.	0	0	0	0	0	0
20.	0	0	0	0	0	0

Total Capital Cost	16,154	\$	PV Grand Total	14,218	\$
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Global Trust
Addendum to Exhibit E - Facility Details and Measurements
O'Donnell #4 - 32141301

0. Unit Costs

Item	Unit Cost	Unit	Discount	ReCap Unit Cost	Description
Pond Construction	\$ 3.29	yd ³	0%	\$ 3.29	The unit cost is based off an average of the high and low cost for soil movement by bidders on a large reclamation project currently being undertaken by CONSOL at another site. The ReCap unit cost was discounted by 90% since CONSOL's maintenance program, the costs of which will be captured in the M&R section on an annual basis, will make the likelihood of a full pond recapitalization negligible.
Ditch Construction	\$ 107.90	ft.	0%	\$ 107.90	The unit cost is based off an average of the high and low cost for soil movement by bidders on a large reclamation project currently being undertaken by CONSOL at another site. The ReCap unit cost was discounted by 90% since CONSOL's maintenance program, the costs of which will be captured in the M&R section on an annual basis, will make the likelihood of a full pond recapitalization negligible.
Pipeline Install	\$ 2.50	Per inch-ft	0%	\$ 2.50	Based on the costs from contractor bids from various ongoing capital projects. The discount assumes that 20% of the pipe will be repaired within the recapitalization period.
Concrete Vault Construction	\$ 1,385.47	yd ³	0%	\$ 1,385.47	Cost based on concrete vault construction price obtained in 2021. The discount is based on the an assumed degradation of 25% of the vault in the lifetime.
Turbidity Boom	\$ 21.00	ft.	0%	\$ 21.00	
Access Road Reconstruction Cost	\$ 24.29	yd ³	0%	\$ 24.29	Cost based on the combination of earthmoving costs (\$3.29/yd) and the cost of road stone (\$15/ton @ 1.4 tons/cy).

1. Ponds

Pond ID	Bank Length (ft.)	Bank Width (ft.)	Depth (ft.)	Estimated Bank Slope (X:1)	Slope %	Subtractable	Bottom Length	Bottom Width	Middle Pond Area (ft ²)	Middle Pond Volume (yd ³)	Slope Area (ft ²)	Slope Area (ft ³)	Slope Area (yd ³)	Total Pond Area (yd ³)	ReCap Cost	Lifetime (Years)
O'Donnell #4 Wetland	165.00	100.00	3.00	2.00	50%	6.00	153.00	88.00	40,392.00	1,496.00	9.00	4,770.00	176.67	1,672.67	\$ 5,503	75.00

2. Ditches

Ditch ID	Base Width (ft.)	Bank Width (ft.)	Depth (ft.)	Ditch Area (ft ²)	Ditch Construction	Length (ft.)	Ditch Volume (ft ³)	Ditch Volume (yd ³)	ReCap Costs	Lifetime (Years)
				-			-	-	\$ -	-

3. Concrete Vaults

Vault ID	Type	Diameter (in.) for circular vaults only	Length (ft.) for rectangular vaults only	Width (ft.) for rectangular vaults only	Depth (ft.)	Wall Thickness (in.)	Concrete Volume (ft ³)	Concrete Volume (yd ³)	ReCap Cost	Lifetime (Years)
	Rectangular						-	-	\$ -	-

4. Turbidity Boom

Boom ID	Length (ft.)	ReCap Cost	Lifetime (Years)
		\$ -	

5. Access Roads

Road ID	Type	Width (ft.)	Length (ft.)	Depth (in.)	Road Volume (ft. ³)	Road Volume (yd ³)	ReCap Cost	Lifetime (Years)
					-	-	\$ -	-

6. Pipe and Culverts

Pipe Name	Pipe Material	Diameter (in.)	Length (ft.)	Cost per Unit Length (Material)	Cost per Unit Length (Labor)	Total Cost per Unit Length	ReCap Cost	Lifetime
Main Pipeline	PVC	3.00	75.00	\$ 4.70	\$ 6.00	\$ 10.70	\$ 401	10

7. Fencing

Name	Length of Fence (ft.)	Total per Unit Fence Cost	ReCap Cost	Lifetime
		43.00	\$ -	

Project **Global Trust**

Site Name **O'Donnell #4 REV4**

Life of Trust Fund	75	ysr
Inflation Rate	3.10	%
Return Rate	8.43	%

**AMD TREAT
RECAPITIALIZATION COST**



AMDTREAT

Year	Trust Fund Growth Fund Before Payout	Trust Fund Growth Fund After Payout	Payout Schedule	Year	Trust Fund Growth Fund Before Payout	Trust Fund Growth Fund After Payout	Payout Schedule
	14,218	14,218	Initial Fund Amount				
1	15,416	15,416	0	51	71,715	71,715	0
2	16,715	16,715	0	52	77,760	77,760	0
3	18,124	18,124	0	53	84,316	84,316	0
4	19,652	19,652	0	54	91,423	91,423	0
5	21,309	21,309	0	55	99,130	99,130	0
6	23,105	23,105	0	56	107,487	107,487	0
7	25,053	25,053	0	57	116,548	116,548	0
8	27,165	27,165	0	58	126,373	126,373	0
9	29,455	29,455	0	59	137,027	137,027	0
10	31,938	31,394	544	60	148,578	47,699	100,878
11	34,041	34,041	0	61	51,720	51,720	0
12	36,911	36,911	0	62	56,081	56,081	0
13	40,022	40,022	0	63	60,808	60,808	0
14	43,396	43,396	0	64	65,934	65,934	0
15	47,054	22,152	24,902	65	71,493	71,493	0
16	24,019	24,019	0	66	77,520	77,520	0
17	26,044	26,044	0	67	84,054	84,054	0
18	28,240	28,240	0	68	91,140	91,140	0
19	30,620	30,620	0	69	98,824	98,824	0
20	33,202	32,463	738	70	107,154	103,756	3,398
21	35,200	35,200	0	71	112,503	112,503	0
22	38,167	38,167	0	72	121,987	121,987	0
23	41,385	41,385	0	73	132,270	132,270	0
24	44,874	44,874	0	74	143,421	143,421	0
25	48,657	48,657	0	75	155,511	0	155,511
26	52,758	52,758	0	76	0	0	0
27	57,206	57,206	0	77	0	0	0
28	62,028	62,028	0	78	0	0	0
29	67,258	67,258	0	79	0	0	0
30	72,927	32,559	40,368	80	0	0	0
31	35,304	35,304	0	81	0	0	0
32	38,280	38,280	0	82	0	0	0
33	41,507	41,507	0	83	0	0	0
34	45,006	45,006	0	84	0	0	0
35	48,800	48,800	0	85	0	0	0
36	52,914	52,914	0	86	0	0	0
37	57,375	57,375	0	87	0	0	0
38	62,212	62,212	0	88	0	0	0
39	67,456	67,456	0	89	0	0	0
40	73,143	71,783	1,359	90	0	0	0
41	77,834	77,834	0	91	0	0	0
42	84,396	84,396	0	92	0	0	0
43	91,510	91,510	0	93	0	0	0
44	99,225	99,225	0	94	0	0	0
45	107,589	45,359	62,230	95	0	0	0
46	49,183	49,183	0	96	0	0	0
47	53,329	53,329	0	97	0	0	0
48	57,824	57,824	0	98	0	0	0
49	62,699	62,699	0	99	0	0	0
50	67,985	66,139	1,845	100	0	0	0

EXHIBIT R-8

Treatment Bond/Trust Calculator

TREATMENT BOND/TRUST CALCULATOR

(c) 2003, 2005, 2006, 2007 by SCMF

Prepared For: **CONSOL Energy Post-Mining Discharge Treatment Trust**
Treatment System(s) ID: **O'Donnell No. 4/Manor No. 8 Treatment System**

Date (mm/dd/yy): **July 19, 2024**

Inflation Rate:	3.1%
Yrs to Treat start:	0
Annual Treatment Cost:	\$10,542.08
Trust Fees:	1.50%
Bond (not needed for rec):	\$0.00
Investment Ratios:	
stock:	80%
bond:	20%
Effective Rate of Return:	8.43%
Volatility Index:	1.16
Rec Bond Rate of Return:	6.00%
Remaining Time on Permit:	5 years

Options	O&M only	Total with Recap	Total with Recap & Insurance	
option #1				
conventional bond:	\$435,749.61	\$435,749.61	\$456,731.33	bond in year
bond adjustment:	\$435,749.61	\$435,749.61	\$456,731.33	6
option #2				
fully funded trust:	\$241,662.45	\$255,880.45	\$261,746.15	trust in year 1

PV of Recap (todays \$\$) @ 8.43%	Eff RoR & 3.1% Inf:	\$14,218.00	for trust in year 1	
PV of Recap (todays \$\$) @ 6.00%	Eff RoR & 3.1% Inf:		for bond in year 1	\$0.00 for bond in year 6

Liability Insurance Factor @ \$1.00 per year, per \$1000 in the total PV of the Trust:	\$255.88 per year	PV Insurance: \$5,865.70
Liability Insurance Factor @ \$1.00 per year, per \$1000 in total Bond:	\$435.75 per year	PV Insurance: \$18,011.41

Fields in RED can be updated

Fields in BLUE are fixed or calculated

Fields in GREEN are partial amounts

Highlighted Fields in GREEN are final amounts

EXHIBIT R-9

Bill of Sale

BILL OF SALE AND LICENSE AGREEMENT

This Bill of Sale and License Agreement is entered into this 2nd day of October, 2024, by and between CONSOL Mining Company LLC ("CMC" or "Transferor") with its principal place of business at 275 Technology Drive, Suite 101, Canonsburg, PA 15317 and Somerset Trust Company with a business address of 131 North Center Avenue, P.O. Box 1330, Somerset, PA 15501, as Trustee of the CMC/Laurel Run/Helvetia Post-Mining Discharge Treatment Trust ("CMC/Laurel Run/Helvetia Treatment Trust").

Whereas, CMC has entered into a Post-Mining Discharge Treatment Trust Consent Order and Agreement ("Trust COA") dated October 2, 2024 with the Commonwealth of Pennsylvania, Department of Environmental Protection (the "Department");

Whereas, CMC has entered into a Post-Mining Discharge Treatment Trust Agreement dated October 2, 2024 with Somerset Trust Company which established the CMC/Laurel Run/Helvetia Treatment Trust; and

Whereas, the Department requires Transferor to continue to treat the post-mining discharges covered by the Trust COA, but also to immediately transfer the water treatment equipment, appurtenances, and facilities to the Trust to facilitate continued treatment of water and protection of the environment in the event CMC or its successors should cease treating the post-mining discharges.

KNOW ALL MEN BY THESE PRESENTS that Transferor in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, does hereby bargain, sell, transfer and convey to Somerset Trust Company, as Trustee of the CMC/Laurel Run/Helvetia Treatment Trust, all of its right, title and interest to the equipment, appurtenances, facilities, and other personal property (the "Personal Property") comprising the O'Donnell No. 4/Manor No. 8 Treatment System, including, but not limited to, the equipment and other property described on Exhibit 1, attached hereto and made a part hereof, such transfer to be effective as of the date hereof (the "Effective Date").

Transferor represents and warrants that the Personal Property is transferred to the Trust hereby free and clear of all liens and encumbrances.

PROVIDED, HOWEVER, that CMC and its successors shall have a license to use, operate, maintain, construct or reconstruct the Personal Property to treat the post-mining discharges so long as CMC, or its successor, is conducting the necessary water treatment operations. Pursuant to the exercise of the rights granted under this License, CMC shall at its sole cost and expense be responsible for maintaining and replacing/upgrading, as appropriate, the Personal Property.

As a condition of the License hereby granted, CMC agrees that any and all parts, additional equipment, replacements, and upgrades to the Personal Property and O'Donnell No. 4/Manor No. 8 Treatment System and systems shall immediately and automatically become the

property of the CMC/Laurel Run/Helvetia Treatment Trust. As long as this Bill of Sale and License Agreement is in effect and not terminated or revoked, CMC, or its successor, shall bear all risk of loss of the Personal Property.

This Bill of Sale and License Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regard to the conflict of laws provisions thereof.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands effective the day and year first above written.

TRANSFEROR:
CONSOL Mining Company LLC

Witness:

Steven P. Aginelli

(signature)

James A. Brock

By: James A. Brock

Title: President, Chairman, and Chief Executive Officer

TRUSTEE:
Somerset Trust Company

Witness:

James P. O'Brien

(signature)

James P. O'Brien

By: James P. O'Brien

Title: V.P. & Sr. Trust Officer

Exhibit 1 - Inventory of Personal Property for O'Donnell No. 4/Manor No. 8 Treatment System

8/23/2024

Installed Equipment Listing:

Index	Item	Notes
I1	Main Pipeline	
I2	Weir Plate	

Spare Equipment Listing:

Index	Item	Storage Location
No Spare Equipment For This Location		