COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:

Forcey Coal, Inc. 475 Banian Road

SMP No. 17990112 (Buterbaugh No. 1 Mine)SMP No. 17010109 (Buterbaugh No. 2 Mine)

Madera, PA 16661

SMP No. 17050109 (Delarme Mine)

SMP No. 17080116 (Porter Operation)

Bigler and Bloom Townships, Clearfield County

:

Alternative Financial Assurance Mechanism

SECOND AMENDMENT TO POST-MINING TREATMENT TRUST CONSENT ORDER AND AGREEMENT

This Second Amendment to Post-Mining Treatment Trust Consent Order and Agreement ("Second COA Amendment") is entered into this day of December, 2023, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department"), and Forcey Coal, Inc. ("Forcey Coal"). As set forth below, this Second Amendment amends the Post-Mining Treatment Trust Consent Order and Agreement dated August 18, 2009, between the Department and Forcey Coal.

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and enforce the Surface Mining Conservation and Reclamation Act, Act of May 31, 1945, P.L. 1198, as amended, 52 P.S. §§ 1396.1-1396.19a ("Surface Mining Act"); the Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, P.L. 31, as amended, 52 P.S. §§ 1406.1-1406.21 ("Mine Subsidence Act"); the Coal Refuse Disposal Control Act, Act of September 24, 1968, P.L. 1040, as amended, 52 P.S. §§ 30.51-30.66 ("Coal Refuse Disposal Act"); The Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §§ 691.1-691.1001 ("Clean Streams Law"); Section 1917-A of the Administrative Code of 1929, Act of

April 9, 1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code"); and the rules and regulations promulgated thereunder.

- B. Forcey Coal is a Pennsylvania corporation whose business includes the surface mining of coal in the Commonwealth of Pennsylvania. Forcey Coal has a mailing address of P.O. Box 225, Madera, PA. 16661 and a business address at 475 Banian Road, Madera PA. 16661.
- C. Forcey Coal is authorized to conduct surface mining activities in Pennsylvania pursuant to Surface Mine Operator's License No. 1436, which expires on December 31, 2023.
- D. Forcey Coal is the permittee and operator of the following formerly active surface mines that are associated with post-mining discharge liability:

NAME	SURFACE MINING PERMIT NO.	NPDES PERMIT NO.	TOWNSHIP	COUNTY
Buterbaugh No. 1 Mine	17990112	PA0238350	Bigler	Clearfield
Buterbaugh No. 2 Mine	17010109	PA0243116	Bigler	Clearfield
Delarme Mine	17050109	PA0256293	Bloom	Clearfield
Porter Operation	17080116	PA0256978	Bigler	Clearfield

E. On August 18, 2009, the Department and Forcey Coal entered into a Post-Mining Treatment Trust Consent Order and Agreement ("2009 Trust COA"). Under the terms of the 2009 Trust COA, Forcey Coal agreed to establish, as an alternative financial assurance mechanism, an irrevocable postmining treatment trust with Northwest Savings Bank to provide for its long-term postmining discharge treatment obligations for post-mining discharges associated with the Buterbaugh No. 1 Mine and Buterbaugh No. 2 Mine surface mine permits. A

copy of the first page of the 2009 Trust COA is attached as Exhibit A, and the document in its entirety is maintained in the Department's Moshannon District Mining Office and posted on the Department's website.

- F. On August 18, 2009, the Department, Forcey Coal, and Northwest Savings Bank executed a Post-Mining Discharge Treatment Trust Agreement ("2009 Trust Agreement") which established a post-mining treatment trust with Northwest Savings Bank, as Trustee, known as the Forcey Coal Post-Mining Treatment Trust ("Forcey Coal Trust") for the purpose of securing Forcey Coal's long-term financial obligation to operate and maintain the mine drainage treatment systems for which Forcey Coal is responsible at the Buterbaugh No. 1 and Buterbaugh No. 2 Mines. A copy of the first page of the 2009 Trust Agreement is attached to the 2009 Trust COA as Exhibit E and the document in its entirety is maintained in the Department's Moshannon District Mining Office and posted on the Department's website.
- G. The Department joined in the 2009 Trust Agreement to indicate its acceptance of the terms and conditions set forth therein, as well as the powers and authorities granted by the Forcey Coal Trust.
- H. On December 4, 2014, the Department and Forcey Coal entered into a First Amendment to the 2009 Trust COA ("First COA Amendment") which added a new permitted mine, the Delarme Mine and the post-mining discharge associated with that mine site, to the 2009 Trust COA and the Forcey Coal Trust. A copy of the first page of the First COA Amendment is attached as Exhibit B, and the document in its entirety is maintained in the Department's Moshannon District Mining Office and posted on the Department's website.
- I. Since the execution of the 2009 Trust COA and the First COA Amendment,
 Forcey Coal's liability for treatment of the post-mining discharges associated with the

Buterbaugh No. 1 Mine and Buterbaugh No. 2 Mine sites have been released and Forcey Coal is no longer responsible for water treatment with respect to those discharges.

J. Additionally, new post-mining discharges have appeared associated with the Delarme Mine and the Porter Operation, and the Department has determined that Forcey Coal is responsible for treating these discharges in perpetuity or until water treatment is no longer necessary.

Corporate Dissolution

- K. Forcey Coal is no longer doing business in the Commonwealth, and the officers of the corporation have informed the Department that they intend to dissolve the corporation in accordance with the Pennsylvania Business Corporations Law, 15 P.S. Chapter 19, Subchapter F regarding corporate dissolution, winding up of corporation business, and discharging corporate liabilities.
- L. The officers of Forcey Coal have recently informed the Department that the corporation no longer has the ability to continue to operate and maintain the treatment systems that are the subject of the 2009 Trust COA, the First COA Amendment, and this Second COA Amendment, and that Forcey Coal intends to discontinue treatment of the discharges because Forcey Coal no longer has any income, technical staff, administrative staff, or employees on a going-forward basis and is unable to perform its obligations under the 2009 Trust COA, the First COA Amendment, and this Second COA Amendment other than meeting the alternative financial assurance requirements as described in the Surface Mining Act, 52 P.S. § 1396.4(d.2), the 2009 Trust COA, the First COA Amendment, and this Second COA Amendment.
- M. The officers of Forcey Coal have informed the Department that they wish to relinquish the corporation's operation and maintenance responsibilities associated with the

treatment systems pursuant to the 2009 Trust COA, the First COA Amendment, and this Second COA Amendment.

- N. Forcey Coal has met all of the land reclamation requirements under the surface mining permits for the Buterbaugh No. 1 Mine, the Buterbaugh No. 2 Mine, the Delarme Mine, and the Porter Operation issued pursuant to the Surface Mining Act and the regulations promulgated thereunder. Other than as described herein regarding Forcey Coal's responsibility to treat long-term post-mining pollutional discharges associated with the Delarme Mine and Porter Operation, all reclamation obligations under the Buterbaugh No. 1 Mine, the Buterbaugh No. 2 Mine, the Delarme Mine, and the Porter Operation surface mining permits have been met and the remaining reclamation surety bonds issued to the Department on behalf of Forcey Coal are eligible to be released.
- O. The Department and Forcey Coal are entering into this Second COA Amendment to the 2009 Trust COA in order to: 1) remove the Buterbaugh No. 1 Mine and Buterbaugh No. 2 Mine permits from the Forcey Coal Trust as water treatment is no longer required for the discharges associated with those permits; 2) add an additional treatment system for discharges associated with the Delarme Mine permit to the Forcey Coal Trust; 3) include revised operation, maintenance, and recapitalization costs for modifications made to the D-14 Treatment System located on the Delarme Mine SMP; 4) add associated post-mining discharges on the Porter Operation surface mining permit to the Forcey Coal Trust; 5) wind up Forcey Coal's mining operation obligations, including responsibility for operating and maintaining the treatment systems associated with the Forcey Coal Trust; 6) address the continued and uninterrupted operation of the treatment systems under the Forcey Coal Trust; and, 7) transfer ownership of

equipment and other items of personal property associated with maintenance and operation of the treatment systems to the Forcey Coal Trust.

Post-Mining Discharges

P. As a result of its mining activities, Forcey Coal has post-mining discharge treatment liability under Section 315 of the Clean Streams Law, 35 P.S. § 315; Section 1396.4 of the Surface Mining Act, 52 P.S. § 1396.4; and 25 Pa. Code §§ 88.92 and 89.52.

Q. <u>Buterbaugh No. 1 Mine (SMP No. 17990112)</u>

- 1. In August 2002, Forcey Coal completed coal removal operations at the Buterbaugh No. 1 Mine, backfilled, and reclaimed the mine site. Subsequently, the Department determined that treatment was required for a pre-existing acid mine drainage ("AMD") discharge identified as BC-3 that was further degraded by Forcey Coal as a result of its mining activities on the Buterbaugh No. 1 Mine site.
- 2. In October 2007, Forcey Coal completed construction of a passive treatment system to treat the BC-3 Discharge ("Buterbaugh No. 1 Treatment System").
- 3. After the Forcey Coal Trust was established and fully funded, the Department determined that the Buterbaugh No. 1 Mine site met Stage 3 reclamation standards, and as of August 18, 2009, all the reclamation bonds posted for the mine site were released.
- 4. The only activity that remained on the Buterbaugh No. 1 Mine site was the operation and maintenance of the Buterbaugh No. 1 Treatment System to treat the postmining discharge identified as the BC-3 Discharge.
- 5. In an email dated April 8, 2021, Forcey Coal, through Todd Coleman,
 P.E., requested that the Department review the current raw water quality monitoring data

- for the BC-3 Discharge to determine if the water quality had returned to pre-mining conditions to the point that water treatment is no longer required.
- 6. The Department conducted a hydrologic investigation in response to Forcey Coal's request to cease treatment of the BC-3 Discharge.
- 7. In order to approve cessation of treatment and monitoring at mining operations, the Department requires at least two (2) consecutive years of water monitoring data which indicate that the parameters of concern no longer exceed the effluent limits.
- 8. In a Hydrologic Investigation Report dated August 4, 2021, the Department determined, based on statistical analysis and evaluation of the past six years of water quality concentration and loading data through March 2021, that the water quality of the BC-3 Discharge had returned to its pre-mining condition and treatment was no longer required. As a result of its review, the Department concluded that Forcey Coal could be relieved of its water treatment liability and its obligation to operate and maintain the Buterbaugh No. 1 Treatment System.
- 9. In a letter dated August 4, 2021, the Department informed Forcey Coal that it was no longer required to treat the BC-3 Discharge as the water quality of the discharge had returned to its pre-mining condition. As a result, it was determined that Surface Mining Permit ("SMP") No. 17990112 and associated National Pollutant Discharge Elimination System ("NPDES") Permit No. PA0238350 were no longer required.
- 10. The August 4, 2021 letter also stated that the 2009 Trust COA would be amended to remove the Buterbaugh No. 1 Mine permit and the associated water treatment system from the Forcey Coal Trust.

R. Buterbaugh No. 2 Mine (SMP No. 17010109)

- 1. In October 2004, Forcey Coal completed coal extraction at the Buterbaugh No. 2 Mine, backfilled and reclaimed the mine site. Subsequently, the Department determined that treatment was required for a pre-existing AMD discharge identified as Subchapter F ("Sub F") Point KB-11 which had been further degraded by Forcey Coal's coal removal operations.
- 2. In November 2006, Forcey Coal completed construction of a passive treatment system to treat Sub F Point KB-11("Buterbaugh No. 2 Treatment System") to the level of the baseline pollution load established in SMP No. 17010109 and NPDES Permit No. PA0243116.
- 3. After the Forcey Coal Trust was established and fully funded, the Department determined that the Buterbaugh No. 2 Mine site met Stage 3 reclamation standards, and as of December 21, 2011, all the remaining land reclamation bonds posted for the mine site were released.
- 4. The only activity that remained on the Buterbaugh No. 2 Mine site was the operation and maintenance of the Buterbaugh 2 Treatment System to treat the postmining discharge identified as the KB-11 Discharge.
- 5. In 2020, the Department conducted a hydrologic investigation in response to improvement in the raw water quality monitoring data for the KB-11 Discharge.
- 6. In a Hydrologic Investigation Report dated June 30, 2020, the Department determined, based on statistical analysis and evaluation of the past five years of water quality concentration and loading data through May 2020, that treatment of the KB-11 Discharge is no longer required. As a result of its review, the Department concluded that

Forcey Coal could be relieved of its water treatment liability and its obligation to operate and maintain the Buterbaugh No. 2 Treatment System.

- 7. In a letter dated November 23, 2020, the Department informed Forcey Coal that it was no longer required to treat the KB-11 Discharge. As a result, SMP No. 17010109 and associated NPDES Permit No. PA0243116 were terminated on that date.
- 8. The November 23, 2020, letter also stated that the 2009 Trust COA would be amended to remove the Buterbaugh No. 2 Mine permit and the associated water treatment system from the Forcey Coal Trust.

S. <u>Delarme Mine (SMP No. 17050109)</u>

- 1. Forcey Coal is the permittee and operator of the Delarme Mine pursuant to SMP No. 17050109. The Delarme Mine is a formerly active surface coal mine located in Bloom Township, Clearfield County, and it has associated post-mining discharge liability as a result of Forcey Coal's mining activities.
- 2. The Department issued SMP No. 17050109 for the Delarme Mine to Forcey Coal on September 22, 2006. The SMP included as Part A, NPDES Permit No. PA0256293. The SMP and NPDES Permits were most recently renewed on September 2, 2021 for reclamation only, including water treatment activities, and they expire on September 22, 2026.
- 3. Forcey Coal ceased coal removal at the Delarme Mine in June 2011.

 Surface reclamation has been completed and Stage 2 bond release has been approved.

 The only activity that remains on the site is the treatment of two (2) noncompliant preexisting discharges identified as Monitoring Points D-7 and D-14.

4. A summary of the reclamation bonds currently posted for the Delarme Mine, which will be held by the Department until the Forcey Coal Trust is fully funded, is as follows:

BOND TYPE	FINANCIAL GUARANTOR	CLB INSTRUMENT NO.	BOND STATUS	BOND AMOUNT
Surety	RLI Insurance	RLB0012044	Active	\$40,127.00
Surety	Rockwood Casualty Insurance	ISM2276	Active	\$20.00

Post-Mining Discharge D-14

- 5. In 2013, the Department determined that Monitoring Point D-14, a formerly developed spring, was degraded as a result of Forcey Coal's mining activities on the Delarme Mine site ("D-14 Discharge"). On December 4, 2014, the Delarme Mine permit was added to the Forcey Coal Trust.
- 6. An aerial map depicting the location of the D-14 Discharge, which is hydrologically connected to and located on the west side of the Delarme Mine permitted area, is attached as Exhibit C-1. The latitude and longitude coordinates for D-14 are as follows: Latitude 41° 00' 52.2" N, Longitude 78 ° 40' 44.4" W.
- 7. The raw water quality of the D-14 Discharge, as compiled by the Department on June 14, 2022, from analytical sampling results for the period from June 24, 2015, through June 16, 2021, is set forth in Exhibit C-2.
- 8. On November 19, 2013, SMP No. 17050109, including NPDES Permit No. PA0256293, was revised to identify the D-14 Discharge and authorize the construction of a passive treatment system to address the degraded monitoring point.

- 9. In December 2013, Forcey Coal constructed a passive treatment system to treat the D-14 Discharge. The D-14 Discharge raw water flows to a spring box, and from the spring box, the discharge flows through a seven-foot limestone bed ("D-14 Treatment System"). After collection at, and neutralization by, the limestone bed, the treated effluent previously discharged via NPDES Outfall 002 to Unnamed Tributary No. 1 to Little Anderson Creek.
- 10. On September 9, 2020, SMP No. 17050109, including NPDES Permit No. PA0256293, was revised to apply the Anderson Creek Total Maximum Daily Load ("TMDL") to the SMP and NPDES Permit. To assure compliance with the approved Anderson Creek TMDL, it was determined that a Non-Discharge Alternative ("NDA") using an infiltration gallery would be required for treatment of the D-14 Discharge because there is no available Waste Load Allocation in Anderson Creek for a point-source discharge from the Delarme Mine site. Forcey Coal submitted a plan, which the Department approved, to modify the D-14 Treatment System in order to treat the discharge and release the treated water to an infiltration gallery instead of discharging as a point source discharge to Unnamed Tributary No. 1 to Little Anderson Creek.
- 11. NPDES Permit No. PA0256293 for the Delarme Mine contains Outfall 002 for the mine drainage treatment system that treats the D-14 Discharge. The required effluent limits applicable to Outfall 002 are set forth in this NPDES Permit, which was renewed by the Department on September 2, 2021, with an effective date of October 1, 2021, and expires on September 22, 2026. This Permit is renewed every five years (pursuant to the authority in 25 Pa. Code Chapter 92a) and the effluent limits may change at the time of renewal or as required by the Department. The effluent limits set forth in

any subsequent renewal of this NPDES Permit govern. The current effluent limits for Outfall 002 are as follows:

Effluent Limits for Outfall 002

Parameter	Minimum	Monthly Average	Daily Maximum	Instantaneous Maximum
Total Iron	N/A	N/A	N/A	7.0 mg/L
Total Manganese	N/A	N/A	N/A	5.0 mg/L
Total Aluminum	N/A	N/A	N/A	5.0 mg/L
Total Suspended Solids	N/A	N/A	N/A	90.0 mg/L
pH (S.U.)	6.0	N/A	N/A	9.0

Post-Mining Treatment Trust

To comply with the revised SMP and NPDES Permit, in December 2020, 12. Forcey Coal modified the D-14 Treatment System to increase the size of the limestone bed to 40 feet by 30 feet at the top of the freeboard, with a depth of four (4) feet of limestone. There is approximately 240 tons of high calcium aggregate limestone that has been placed in the limestone bed. Forcey Coal also replaced the discharge pipe that flowed from the limestone bed into Unnamed Tributary No. 1 to Little Anderson Creek with an NDA infiltration gallery that consists of a 125-foot-long by 2 feet deep infiltration trench. The infiltration trench has a non-woven geotextile liner, a 125-foot long 6" Schedule 40 perforated pipe and is backfilled with aggregate. The infiltration trench has a 12 inches of topsoil cover and is vegetated. Treated effluent now flows by gravity from the limestone bed into the infiltration trench via a plumbing system at the bottom of the limestone bed consisting of 6" Schedule 40 PVC underdrain pipes with ½" perforations. The treated effluent that is released into the NDA infiltration gallery is monitored at relocated Outfall 002 (D14T) before it is piped to the infiltration trench. The limestone bed also has a valve and drainpipe with an end cap to flush solids from the limestone bed. Exhibit C-3 is an As-Built design plan dated July 27, 2022 that illustrates the modified D-14 Treatment System configuration.

- 13. The D-14 Treatment System is situated on land owned Dolores A. Cable. Forcey Coal has obtained from Dolores A. Cable a properly executed Consent to Right of Entry form which grants the Department, Forcey Coal, and the Trustee access to the D-14 Treatment System. A copy of the executed Consent to Right of Entry form and evidence of its recordation in Clearfield County is attached as Exhibit C-4.
- 14. As a result of the modifications made to the D-14 Treatment System, the Department required, and Forcey Coal submitted, revised cost estimates for the treatment system, calculated using the AMDTreat computer software tool ("AMDTreat") of the United States Department of Interior's Office of Surface Mining Reclamation and Enforcement.
- 15. The revised capital cost to construct the modified D-14 Treatment System, as calculated using AMDTreat, is eleven thousand seven hundred sixty-seven dollars (\$11,767.00).
- 16. In order to calculate the amount necessary to fully fund the Forcey Coal Trust as a result of the modifications to the D-14 Treatment System, the Department and Forcey Coal have agreed to use actual operation and maintenance costs from past and current operation of the treatment system, or AMDTreat cost estimates where insufficient operation and maintenance cost data exist. A summary of current annual operation and maintenance costs for the D-14 Treatment System is as follows:

CATEGORY	SAMPLING	LABOR	MAINTENANCE	CHEMICAL	SLUDGE
					REMOVAL
Rate	\$33.50/sample	\$35/hr.			
Annual Cost	\$1,264	\$455	\$374	N/A	N/A

Based on actual operation and maintenance costs incurred in 2021 and 2022 and AMDTreat cost estimates, the current annual cost of operating and maintaining the D-14 Treatment System is two thousand ninety-three dollars (\$2,093.00). The AMDTreat cost estimate worksheets are attached as Exhibit C-5.

- 17. In order to calculate the amount necessary to fully fund the Forcey Coal Trust as a result of the modifications to the D-14 Treatment System, the Department and Forcey Coal have agreed to use recapitalization cost data generated by OSM's AMDTreat software tool. According to AMDTreat, the present value of recapitalization costs for the modified D-14 Treatment System is eighteen thousand nine hundred sixty-four dollars (\$18,964.00). The AMDTreat Recapitalization Cost worksheet and schedule for the D-14 Treatment System are attached as Exhibit C-6.
- 18. In order to calculate the amount necessary to fully fund the portion of the Forcey Coal Trust that addresses the modified D-14 Treatment System, the parties agree that the present value of a trust to cover treatment liability for the D-14 Discharge is sixty-eight thousand four hundred seventy-seven dollars and sixty-eight cents (\$68,477.68). This sum constitutes the current present value of the estimated future operation and maintenance costs; the current present value of the estimated future recapitalization costs; and the current present value of the estimated future liability

insurance costs for the D-14 Treatment System, as shown on the Treatment Bond/Trust Calculator attached as Exhibit C-7.

Post-Mining Discharge D-7

- 19. Previously impacted Monitoring Point D-7 was further degraded by Forcey Coal's mining activities on the Delarme Mine site ("D-7 Discharge").
- 20. An aerial map depicting the location of the D-7 Discharge, which is hydrologically connected to and located on the northern portion of the Delarme Mine SMP, is attached as Exhibit C-1. The latitude and longitude coordinates for the D-7 Discharge are as follows: Latitude 41° 01' 11.6" N, Longitude 78 ° 40' 25.1" W.
- 21. The raw water quality of D-7, as compiled by the Department on June 14, 2022, from analytical sampling results for the period from December 11, 2019, through March 31, 2022, is set forth in Exhibit D-1.
- 22. NPDES Permit No. PA0256293 for the Delarme Mine contains Outfall 001 for the mine drainage treatment system that treats the D-7 Discharge. An NDA using an infiltration gallery is required for treatment of the D-7 Discharge to assure compliance with the approved Anderson Creek TMDL because there is no available Waste Load Allocation in Anderson Creek for a point-source discharge from the Delarme Mine site. The required effluent limits applicable to Outfall 001 are set forth in the NPDES Permit, which was renewed by the Department on September 2, 2021, with an effective date of October 1, 2021, and expires on September 22, 2026. This Permit is renewed every five years (pursuant to the authority in 25 Pa. Code Chapter 92a) and the effluent limits may change at the time of renewal or as required by the Department. The effluent limits set

forth in any subsequent renewal of the NPDES Permit govern. The current effluent limits for Outfall 001 are as follows:

Effluent Limits for Outfall 001

Parameter	Minimum	Monthly Average	Daily Maximum	Instantaneous Maximum
Total Iron	N/A	N/A	N/A	7.0 mg/L
Total Manganese	N/A	N/A	N/A	5.0 mg/L
Total Aluminum	N/A	N/A	N/A	5.0 mg/L
Total Suspended Solids	N/A	N/A	N/A	90.0 mg/L
pH (S.U.)	6.0	N/A	N/A	9.0

Post-Mining Treatment Trust

23. In December 2020, Forcey Coal constructed a passive treatment system to treat the D-7 Discharge ("D-7 Treatment System"). The D-7 Discharge raw water is collected for treatment and directed to a limestone bed to increase the alkalinity and pH and reduce the iron, manganese, and aluminum to acceptable limits. Treated water drains from the limestone bed through a plumbing system at the bottom of the bed and flows to the NDA infiltration gallery which measures 45 feet by 125 feet and contains a 125-footlong infiltration trench. The infiltration trench is two feet deep and includes a non-woven geotextile liner and a 125-foot long 6" Schedule 40 perforated pipe. The trench is backfilled with aggregate and has a 12" topsoil cover and is vegetated. The treated effluent is monitored at Outfall 001 (D-7T) before it is piped to the NDA infiltration gallery. The treatment system also has a flush pond that is 3 feet deep with dimensions of 46 feet by 38 feet at the top of the freeboard. The limestone bed has a valve and drainpipe to flush solids from the limestone bed to the flush pond when needed. Exhibit D-2 is an As-Built design plan dated May 1, 2023 that illustrates the D-7 Treatment System configuration.

- 24. The D-7 Treatment System is situated on land owned by Robert J. and Gloria F. Tepke. Forcey Coal has obtained from Robert J. and Gloria F. Tepke a properly executed Contractual Consent of Landowner form which grants the Department and Forcey Coal access to the Delarme Mine site, including the D-7 Treatment System. A copy of the executed Contractual Consent of Landowner form with evidence of its recordation in Clearfield County is attached as Exhibit D-3.
- 25. The estimated capital cost to construct the D-7 Treatment System, as calculated using AMDTreat is eighteen thousand one hundred ninety-seven dollars (\$18,197.00).
- 26. In order to calculate the amount necessary to fully fund the Forcey Coal Trust as a result of the addition of the D-7 Treatment System, the Department and Forcey Coal have agreed to use actual operation and maintenance costs from past operation of the D-7 Treatment System, or AMDTreat cost estimates where insufficient operation and maintenance cost data exist. A summary of current annual operation and maintenance costs for the D-7 Treatment System is as follows:

Table of Current Annual Operation and Maintenance Costs

CATEGORY	SAMPLING	LABOR	MAINTENANCE	CHEMICAL	SLUDGE REMOVAL
Rate	\$33.50/sample	\$35/hr.			1001110 1110
Annual Cost	\$1,264	\$796	\$579	N/A	N/A

Based on actual operation and maintenance costs from past operations and AMDTreat cost estimates, the current annual cost of operating and maintaining the D-7 Treatment

System is two thousand six hundred thirty-nine dollars (\$2,639.00). The AMDTreat cost estimates are attached as Exhibit D-4.

- 27. In order to calculate the amount necessary to fully fund the Forcey Coal Trust as a result of the addition of the D-7 Treatment System, the Department and Forcey Coal have agreed to use recapitalization cost data generated by AMDTreat. According to AMDTreat, the present value of recapitalization costs for the D-7 Treatment System is twenty-six thousand four hundred thirty-two dollars (\$26,432.00). The AMDTreat Recapitalization Cost worksheet and schedule for the D-7 Treatment System are attached as Exhibit D-5
- 28. In order to calculate the amount necessary to fully fund the portion of the Forcey Coal Trust that addresses the D-7 Treatment System, the parties agree that the present value of a trust to cover Forcey Coal's treatment liability for the D-7 Discharge is eighty-eight thousand nine hundred twenty dollars and eight cents (\$88,920.08). This sum constitutes the current present value of the estimated future operation and maintenance costs; the current present value of the estimated future recapitalization costs; and the current present value of the estimated future liability insurance costs for the D-7 Treatment System, as shown on the Treatment Bond/Trust Calculator attached as Exhibit D-6.

T. Porter Operation (SMP No. 17080116)

1. Forcey Coal is the permittee and operator of the Porter Operation pursuant to SMP No. 17080116. The Porter Operation is a formerly active surface coal mine located in Bigler Township, Clearfield County. The SMP was originally issued to Forcey Coal for the Porter Operation on July 6, 2010 and was most recently renewed on

September 4, 2020 for reclamation only, including water treatment activities. The SMP expires on July 6, 2025.

- 2. Coal extraction on the Porter Operation ceased in July 2014 and surface reclamation was completed in June 2015. The only activity that remains on the site is the treatment of two post-mining discharges identified as Sub F Monitoring Point P-4 and Sub F Monitoring Point P-9, pre-existing discharges of AMD that are located within or hydrologically connected to the Porter Operation SMP.
- 3. The reclamation bond currently posted for the Porter Operation, which will be held until the trust is fully funded, is as follows:

	FINANCIAL GUARANTOR	BOND INSTRUMENT NO.	BOND STATUS	BOND AMOUNT
Surety	RLI Insurance	RLB0012044	Active	\$158,345.00

Post-Mining Discharge P4

- 4. Sub F Monitoring Point P-4, a Brookville coal seam deep mine discharge hydrologically connected to the Porter Operation SMP, showed signs of degradation as early as the 2011/2012 Subchapter F water year evaluation, which noted that acidity and metals concentrations were increasing ("P-4 Discharge").
- 5. On July 14, 2015, the Department issued an order requiring Forcey to provide interim treatment of the P-4 Discharge, as well as provide a long-term treatment plan to treat the Sub F water back to pre-mining loadings. An updated treatment plan was submitted to the Department on January 31, 2017 and approved on April 11, 2018.

- 6. An aerial map depicting the location of the P-4 Discharge, which originates from an abandoned Brookville deep mine on the north side of State Route 53 ("SR 53"), is attached as Exhibit E-1. The latitude and longitude coordinates for the P-4 Discharge are as follows: latitude 40° 49′ 20.6" N and longitude 78° 27′ 29.7" W.
- 7. The raw water quality of the P-4 Discharge, as compiled by the Department on June 14, 2022, from analytical sampling results for the period from May 10, 2016 through April 29, 2022, is set forth in Exhibit E-2.
- 8. On April 11, 2018, SMP No. 17080116 was revised to add additional acreage to construct and maintain a long-term passive water treatment system to treat the P-4 Discharge. The NPDES information was also removed from the SMP and an individual NPDES Permit was issued.
- 9. NPDES Permit No. PA0256978 for the Porter Operation contains Outfall 004 for the mine drainage treatment system which is used to treat the P-4 Discharge. The required effluent limits applicable for Outfall 004 are set forth in the NPDES Permit, which was revised and renewed by the Department on September 4, 2020 and expires on July 6, 2025. This Permit is renewed every five years, and pursuant to the authority in 25 Pa. Code Chapter 92a, the effluent limits may change at the time of renewal or as required by the Department. The effluent limits set forth in any subsequent renewal of the NPDES Permit govern. The current effluent limits for Outfall 004, which are loading limits based on a statistical analysis of pre-mining sampling data at Sub F Monitoring Point P-4, are set forth in the NPDES Permit, as follows:

Effluent Limits for Outfall 004

	30-Day	Daily	Instantaneous
Parameter	Average	Maximum	Maximum
Net Acidity (lbs/day)	N/A	N/A	97.51
Total Iron (lbs/day)	N/A	N/A	9.49
Total Manganese (lbs/day)	N/A	N/A	2.13
Total Aluminum	N/A	N/A	8.37

10. In 2018, Forcey Coal constructed a passive treatment system to treat degraded the P-4 Discharge. The treatment system consists of a wooden flow measurement weir, a raw water collection sump, a rock lined collection ditch, and an anaerobic wetland ("P-4 Treatment System"). The P-4 Discharge raw water emanates from the abandoned Brookville deep mine and flows over an embankment toward SR 53 where it flows through a 24-inch diameter high density polyethylene culvert pipe to the south side of SR 53. The water is then collected in a rock lined channel and conveyed to a collection sump pond. Raw water in the sump is conveyed to the anaerobic wetland, which contains baffles for treatment, via an eight (8)-inch plastic pipe. The anaerobic wetland measures 66 feet by 43 feet at the top of freeboard and is 3 feet deep. The wetland is unlined and it consists of a 0.5-foot layer of compost to promote growth of wetland vegetation, and a 0.2-foot layer of limestone to add alkalinity. When needed, sludge from the P-4 Treatment System can be pumped into a tank truck and hauled to a sludge injection borehole above the P-9 Treatment System for disposal. Treated effluent from the anaerobic wetland discharges to pre-existing wetlands at Outfall 004. Water from the existing wetlands flows to Clearfield Creek via an existing clay tile pipe. An As-Built Design Plan depicting the P-4 Treatment System is attached as Exhibit E-3.

11. The P-4 Treatment System is situated on land owned by Brandon S. Ball and Eric J. and Jodi K. Porter. Forcey Coal has obtained from Brandon S. Ball and Eric and Jodi Porter properly executed Consent to Right of Entry forms which grant the Department, Forcey Coal, and the Trustee access to the P-4 Treatment Systems. A copy of the executed Consent to Right of Entry forms with evidence of their recordation in Clearfield County is attached as Exhibit E-4.

Post-Mining Treatment Trust

- 12. The estimated capital cost to construct the P-4 Treatment System, as calculated using AMDTreat, is three thousand six hundred sixty-seven dollars (\$3,667.00).
- 13. In order to calculate the amount necessary to fully fund the Forcey Coal Trust as a result of the addition of the P-4 Treatment System, the Department and Forcey Coal have agreed to use actual operation and maintenance costs from past operation of the P-4 Treatment System, or AMDTreat cost estimates where insufficient operation and maintenance cost data exist. A summary of current annual operation and maintenance costs for P-4 Treatment System is as follows:

Table of Current Annual Operation and Maintenance Costs

CATEGORY	SAMPLING	LABOR	MAINTENANCE	CHEMICAL	SLUDGE
					REMOVAL
Rate	\$33.50/sample	\$35/hr.			
Annual Cost	\$1,189	\$227	\$500	N/A	\$0

Based on actual operation and maintenance costs from past operations and AMDTreat cost estimates, the current annual cost of operating and maintaining the P-4 Treatment

System is one thousand nine hundred sixteen dollars (\$1,916.00). The AMDTreat cost estimates are attached as Exhibit E-5.

- 14. In order to calculate the amount necessary to fully fund Forcey Coal Trust, the Department and Forcey Coal have agreed to use recapitalization cost data generated by AMDTreat. According to AMDTreat, the present value of recapitalization costs for the P-4 Treatment System is one thousand eight hundred eighty-six dollars (\$1,886.00). The AMDTreat Recapitalization Cost worksheet and schedule for the P-4 Treatment System is attached as Exhibit E-6.
- 15. In order to calculate the amount necessary to fully fund the portion of the Forcey Coal Trust that addresses the P-4 Treatment System, the parties agree that the present value of a trust to cover treatment liability for the P-4 Discharge is forty-six thousand eight hundred fifty-seven dollars and seventy cents (\$46,857.70). This sum constitutes the current present value of the estimated future operation and maintenance costs; the current present value of the estimated future recapitalization costs; and the current present value of the estimated future liability insurance costs for the P-4 Treatment System, as shown on the Treatment Bond/Trust Calculator attached as Exhibit E-7.

Post-Mining Discharge P-9

16. Sub F Point Monitoring P-9, which originates from a spring east of the Porter Operation SMP, is hydrologically connected to the mine site. The Sub F monitoring point showed signs of degradation during the 2012/2013 Subchapter F water year evaluation, which noted that the water exceeded critical values for acidity and metals ("P-9 Discharge").

- 17. On July 14, 2015, the Department issued an order requiring Forcey to provide interim treatment at to the P-9 Discharge, as well as provide a long-term treatment plan to treat the Sub F water back to pre-mining loadings. An updated treatment plan was submitted to the Department on January 31, 2017 and approved on April 11, 2018.
- 18. An aerial map depicting the location of the P-9 Discharge, which emanates from the toe of a reclaimed post-mining embankment, is attached as Exhibit E-1. The latitude and longitude coordinates for the P-9 Discharge are as follows: latitude 40° 49' 29.0" N and longitude 78° 27' 09.2" W.
- 19. The raw water quality of the P-9 Discharge, as compiled by the Department on June 14, 2022, from analytical sampling results for the period from February 11, 2015 through April 29, 2022, is set forth in Exhibit F-1.
- 20. On April 11, 2018, SMP No. 17080116 was revised to add additional acreage to construct and maintain a long-term passive water treatment system to treat the P-9 Discharge. The NPDES information was also removed from the SMP and an individual NPDES Permit was issued.
- 21. NPDES Permit No. PA0256978 for the Porter Operation contains Outfall 005 for the mine drainage treatment system used to treat the P-9 Discharge. The required effluent limits applicable for Outfall 005 are set forth in the NPDES Permit, which was revised and renewed by the Department on September 4, 2020 and expires on July 6, 2025. This Permit is renewed every five years, and pursuant to the authority in 25 Pa. Code Chapter 92a, the effluent limits may change at the time of renewal or as required by the Department. The effluent limits set forth in any subsequent renewal of the NPDES

Permit govern. The current effluent limits for Outfall 005, which are loading limits based on a statistical analysis of pre-mining sampling data at Sub F Monitoring Point P-9, are set forth in the NPDES Permit, as follows:

Effluent Limits for Outfall 005

	30-Day	Daily	Instantaneous
Parameter	Average	Maximum	Maximum
Net Acidity (lbs/day) Total Iron (lbs/day)	N/A N/A	N/A N/A	2.10 0.22
Total Manganese (lbs/day)	N/A	N/A	0.20
Total Aluminum	N/A	N/A	0.17

22. In 2018, Forcey Coal installed an active chemical treatment system that uses liquid caustic soda as the chemical reagent to treat the P-9 Discharge ("P-9 Treatment System"). The treatment system has an anoxic limestone drain, a 500-gallon plastic storage tank for holding caustic soda, a shed that houses a 55-gallon caustic flush tank, and two clay-lined treatment/settling ponds. Sub F Monitoring Point P-9 raw water flows into the anoxic limestone drain and through a 3" PVC pipe to the caustic flush tank where the water is treated with caustic soda and then discharges through a 6" flex corrugated plastic pipe to the first of two treatment ponds that provide retention time for water treatment and settling of solids from the water. Sludge from the treatment ponds is periodically pumped into the abandoned Shoff Deep Mine, which lies beneath the Porter Operation surface mine site, via one of two sludge injection boreholes located above the P-9 Treatment System on the Porter SMP. Sludge is pumped directly from the P-9 treatment ponds to the borehole using a 3" portable pump and flexible pump line. Treated effluent discharges from Pond 2 via a 4" PVC pipe to Outfall 005 which discharges to

Clearfield Creek. An As-Built Design Plan depicting the P-9 Treatment System is attached as Exhibit F-2.

23. The P-9 Treatment System is situated on land owned by Eric J. and Jodi K. Porter. Forcey Coal has obtained from Eric and Jodi Porter a properly executed Consent to Right of Entry form which grants the Department, Forcey Coal and the Trustee access to the P-9 Treatment Systems. A copy of the executed Consent to Right of Entry form with evidence of its recordation in Clearfield County is attached as Exhibit E-4.

Post-Mining Treatment Trust

- 24. The estimated capital cost to construct the P-9 Treatment System, as calculated using AMDTreat, is six thousand five hundred ninety-two dollars (\$6,592.00).
- 25. In order to calculate the amount necessary to fully fund the Forcey Coal Trust as a result of the addition of the P-9 Treatment System, the Department and Forcey Coal have agreed to use actual operation and maintenance costs from past operation of the treatment system, or AMDTreat cost estimates where insufficient operation and maintenance cost data exist. A summary of current annual operation and maintenance costs for P-9 Treatment System is as follows:

Table of Current Annual Operation and Maintenance Costs

CATEGORY	SAMPLING	LABOR	MAINTENANCE	CHEMICAL	SLUDGE	OTHER
					REMOVAL	
Rate	\$33.50/sample	\$35/hr.				
Annual Cost	\$790	\$5,460	\$210	\$4,780	\$960	\$250

Based on actual operation and maintenance costs from past operations and AMDTreat cost estimates, the current annual cost of operating and maintaining the P-9 Treatment System is twelve thousand four hundred fifty dollars (\$12,450.00). The AMDTreat cost estimates are attached as Exhibit F-3.

- 26. In order to calculate the amount necessary to fully fund Forcey Coal Trust, the Department and Forcey Coal have agreed to use recapitalization cost data generated by AMDTreat. According to AMDTreat, the present value of recapitalization costs for the P-9 Treatment System is one thousand seven hundred forty dollars (\$1,740.00). The AMDTreat Recapitalization Cost worksheet and schedule for the P-9 Treatment System is attached as Exhibit F-4.
- 27. In order to calculate the amount necessary to fully fund the portion of the Forcey Coal Trust that addresses the P-9 Treatment System, the parties agree that the present value of a trust to cover treatment liability for the P-9 Discharge is two hundred ninety-three thousand seven hundred twenty-one dollars and ten cents (\$293,721.10). This sum constitutes the current present value of the estimated future operation and maintenance costs; the current present value of the estimated future recapitalization costs; and the current present value of the estimated future liability insurance costs for the P-9 Treatment System, as shown on the Treatment Bond/Trust Calculator attached as Exhibit F-5.hgggh

Forcey Coal Multi-Site Post-Mining Treatment Trust

U. Forcey Coal agrees it has the legal responsibility pursuant to, *inter alia*, the Surface Mining Act, the Mine Subsidence Act, the Coal Refuse Disposal Act, the Clean Streams Law, and the regulations promulgated thereunder, to properly treat or abate the discharges from

the Delarme Mine and the Porter Operation identified in Paragraphs S.6., S.20., T.6., and T.18, above, to meet the effluent limits set forth in the then current NPDES Permits.

- V. The parties have discussed the need to obtain accurate and timely information on the costs of operating and maintaining the D-7, D-14, P-4 and P-9 Treatment Systems (referred to collectively as the ("Treatment Systems") in order to determine and maintain the proper amount of financial assurance, and Forcey Coal has provided that information.
- W. With the addition of the D-7 Treatment System, the modifications made to the D-14 Treatment System, the addition of the P-4 and P-9 Treatment Systems, and the removal of the Buterbaugh No. 1 and Buterbaugh No. 2 Treatment Systems, the parties agree that based on the formulas set forth below, the present value of the fully funded Forcey Coal Trust for the post-mining treatment liability at the Delarme Mine and the Porter Operation is four hundred ninety-seven thousand nine hundred seventy-six dollars and fifty-five cents (\$497,976.55). This sum constitutes the current present value of the estimated future operation and maintenance costs for the Treatment Systems; the current present value of the estimated future recapitalization costs for the Treatment Systems; and the current present value of the estimated future liability insurance costs for the Treatment Systems, as shown on the combined Treatment Bond/Trust Calculator attached as Exhibit G.
- X. On April 27, 2023, Forcey Coal established an irrevocable charitable trust known as the Forcey Water Treatment Trust by executing a *Participation Agreement for the Clean Streams Foundation, Inc. Trust* (the "Participation Agreement") under and pursuant to the April 7, 2001 *Declaration of Trust for the Clean Streams Foundation, Inc.* ("2001 Declaration of Trust") with the Clean Streams Foundation, Inc. ("CSF") as an alternative financial assurance mechanism, (and a financially-backed enforceable contract), in order to provide for the long-term treatment of

post-mining discharges connected to the Delarme Mine and the Porter Operation, and secure the release of the reclamation bonds referenced in Paragraphs S.4. and T.3., above, upon completion of all other reclamation and bond release requirements and the full funding of the Forcey Water Treatment Trust pursuant to this Second COA Amendment. The Department consented to Forcey Coal entering into the Participation Agreement on April 27, 2023. The Participation Agreement establishing the Forcey Water Treatment Trust is hereby incorporated into the 2009 Trust COA and the amendments thereto and is attached as Exhibit H.

- Y. Forcey Coal and the Department have agreed to transfer the Forcey Coal Trust from Northwest Savings Bank to the CSF in order to obtain the benefits of a charitable trust pursuant to Forcey Coal's authority to transfer the trust to another trustee and the Department's written confirmation of the successor trustee under Article 9.1 of the 2009 Trust Agreement.
- Z. Forcey Coal has complied with the 2009 Trust COA and the First COA Amendment. As of November 29, 2023, the Forcey Coal Trust, held and managed by the Clean Streams Foundation, has a value of \$540,931.40. At this time, the Forcey Coal Trust is deemed sufficiently funded and no additional contributions from Forcey Coal are necessary to fund long-term operation and maintenance of the Treatment Systems.
- AA. In order to support the wind-down of Forcey Coal's business and in anticipation of the turnover of responsibility to the Department for operation and maintenance of the Treatment Systems in accordance with Paragraph 5(a)(i) of the 20009 Trust COA, the Department has inspected and evaluated the Treatment Systems and determined that they are satisfactorily maintained in good operating condition and operate in a manner that consistently meets the effluent limits set forth in the applicable and current NPDES Permits referenced above.

- BB. In accord with the requirements under the Pennsylvania Business Corporations Law to wind up the corporation by discharging Forcey Coal's debts and other liabilities, settle and close Forcey Coal's business, and marshal and distribute the assets of the corporation including obligations under its regulatory approvals and the 2009 Trust COA, the First COA Amendment, and 2009 Trust Agreement as described herein, the officers of Forcey Coal have agreed to enter into this Second COA Amendment with the Department.
- CC. Forcey Coal no longer has any remaining active mining operations but currently retains water treatment liability under SMP Nos. 17050109 and 17080116 that are associated with the 2009 Trust COA, the First COA Amendment, and this Second COA Amendment and with Forcey Coal's NPDES Permit Nos. PA0256293 and PA0256978.
- DD. Consistent with the purpose of the Forcey Coal Trust as specified in Paragraph 5.a of the 2009 Trust COA, due to Forcey Coal's inability to continue to operate and maintain the Treatment Systems and treat the post-mining discharges, and Forcey Coal's intended dissolution as described above, the officers of Forcey Coal are tendering those obligations and the corporation's rights under the Forcey Water Treatment Trust to the Department and the CSF, as described herein and subject to the terms set forth below.
- EE. The parties hereto acknowledge the intended dissolution of Forcey Coal as a business entity, Forcey Coal's agreement to fully fund the Forcey Water Treatment Trust, and settlement of Forcey Coal's legal obligation to provide financial resources to the Commonwealth to provide for long-term water pollution treatment, as required by Section 4(d.2) of SMCRA, 52 P.S. § 1396.4(d.2.), along with a limitation of liability for Forcey Coal, its shareholders, officers and directors, as set forth herein.

ORDER

After full and complete negotiation of all matters set forth in this Second COA

Amendment and upon mutual exchange of covenants contained herein, the parties intending to
be legally bound, it is hereby ORDERED by the Department and AGREED to by Forcey Coal as
follows:

1. *Authority*. This Second COA Amendment to the 2009 Trust COA is an Order of the Department authorized and issued pursuant to Sections 5 and 610 of the Clean Streams Law, 35 P.S. §§ 691.5 and 691.610; Section 4.3 of the Surface Mining Act, 52 P.S. § 1396.4c; Sections 3.1 and 9 of the Coal Refuse Disposal Act, 52 P.S. §§ 30.53a and 30.59; Section 9 of the Mine Subsidence Act, 52 P.S. § 1409.9; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17. The failure of Forcey Coal to comply with any term or condition of this Second COA Amendment shall subject Forcey Coal to all penalties and remedies provided by those statutes, and the regulations promulgated thereunder, for failing to comply with an order of the Department.

2. Findings.

- a. Forcey Coal agrees that the findings in Paragraphs A through EE of this

 Second COA Amendment are true and correct, and in any matter or proceeding involving Forcey

 Coal and the Department, Forcey Coal shall not challenge the accuracy or validity of these

 findings.
- b. The parties do not authorize any other persons to use the findings in the 2009 Trust COA, the First COA Amendment, and this Second COA Amendment in any matter or proceeding.

- c. These findings are hereby incorporated into the 2009 Trust COA, the First COA Amendment, and the 2009 Trust Agreement by reference as if fully set forth therein.
- 3. The Porter Operation is hereby added to the 2009 Trust COA and is subject to the terms, conditions and obligations thereof, except as modified herein.
- 4. Paragraph 5.a.(i) of the 2009 Trust COA is deleted and replaced with the following:
 - 5. Establishment and Funding of the Forcey Coal Post-Mining Treatment Trust and Release of the Forcey Coal Surety Bonds and Financial Guarantees.
 - a.(i) Forcey Coal has established an irrevocable charitable trust known as the Forcey Water Treatment Trust with the CSF by executing the "Participation Agreement" on April 27, 2023, a copy of which is attached as Exhibit H. Forcey Coal has transferred the Forcey Coal Trust from Northwest Savings Bank to the CSF in order to obtain the benefits of a charitable trust pursuant to Forcey Coal's authority to transfer the trust to another trustee and the Department's written confirmation of the successor trustee under Article 9.1 of the 2009 Trust Agreement. The Forcey Water Treatment Trust secures Forcey Coal's obligation to treat the D-7, D-14, P-4 and P-9 Discharges, including its legal obligation to operate and maintain the Treatment Systems in perpetuity or until the Department determines that water treatment is no longer necessary. The Forcey Water Treatment Trust also secures Forcey Coal's obligation to provide financial resources to the Department and the citizens of the Commonwealth sufficient to operate and maintain the Treatment Systems and to treat the mine drainage in perpetuity in the event Forcey Coal becomes unable or unwilling to meet these obligations. The Forcey

Water Treatment Trust shall provide for the demolition of treatment facilities and reclamation of the treatment site should treatment no longer be needed.

5. Real and Personal Property.

- a. Forcey Coal has created an inventory of all the equipment, facilities, and other personal property used by Forcey Coal for the treatment of the post-mining discharges associated with the Delarme Mine and Porter Operation surface mine sites described above ("Personal Property") which has been reviewed and approved by the Department. The inventory of Personal Property is set forth on page 3 of the Bill of Sale and License Agreement between Forcey Coal and the CSF attached as Exhibit I. Forcey Coal has transferred and conveyed to the Trustee, without reservation, all Personal Property including, but not limited to, the equipment and other property listed in the inventory set forth in Exhibit I in order to ensure continued treatment of the discharges by the Department and the Trustee. Said transfer and conveyance has been made pursuant to the Bill of Sale and License Agreements attached as Exhibit I.
- b. Since execution of the 2009 Trust COA and the First COA Amendment, Forcey Coal has obtained and provided to the Department properly executed and recorded access easements required by the Department and the Trustee to gain legal access to the real property containing the Treatment Systems, including the equipment and facilities for the treatment of the discharges associated with the Delarme Mine and Porter Operation Mine sites. Copies of the executed and recorded Consent to Right of Entry forms are more fully described in Paragraphs S.13, S.24, T.11 and T.23, above.

6. Treatment Liability.

a. As set forth in Paragraph Q.9, above, Forcey Coal has been relieved of its water treatment liability with respect to the Buterbaugh No. 1 Mine SMP, and the associated

Buterbaugh No. 1 Treatment System is hereby removed from the Forcey Water Treatment Trust.

- b. As set forth in Paragraph R.7, above, Forcey Coal has been relieved of its water treatment liability with respect to the Buterbaugh No. 2 Mine SMP, and the associated Buterbaugh No. 2 Treatment System is hereby removed from the Forcey Water Treatment Trust.
- c. On January 1, 2024, the CSF shall take over operation and management of the Treatment Systems on behalf of the Department, and the Department, as the named beneficiary of the Forcey Water Treatment Trust, will utilize the funds in the Forcey Water Treatment Trust to operate and maintain the Treatment Systems in a manner consistent with the 2009 Trust COA, the First COA Amendment, this Second COA Amendment, and the Participation Agreement.
 - 7. Paragraph 16 of the 2009 Trust COA is revised as follows:

16. Forcey Coal's Continuing Obligation.

The Department acknowledges that under the terms of this Second COA Amendment, after the CSF takes over operation and management of the Treatment Systems on behalf of the Department, Forcey Coal, its shareholders, officers and directors will have no further obligation, responsibility or liability for: (i) for the ongoing treatment of the mine discharges associated with the Delarme Mine, SMP No. 17050109, and the Porter Operation, SMP No. 17080116, identified in Paragraphs S.1 and T.1, above, or (ii) any other obligation or responsibility under the 2009 Trust COA, the First COA Amendment, and the 2009 Trust Agreement.

8. Waiver of Rights to Trust and to Distribution from the Trust. With the exception of the Annual Distribution to which Forcey Coal may be entitled to pursuant to Paragraph 6 of the 2009 Trust COA, Forcey Coal hereby waives any right, title or interest in the

Forcey Coal Trust or the Forcey Water Treatment Trust following execution of this Second COA Amendment. Forcey Coal also waives any right to, and the Forcey Water Treatment Trust shall retain, all future disbursements Forcey Coal may be entitled to under the 2009 Trust COA, including but not limited to, any distribution that Forcey Coal may be entitled to under Paragraph 8 of the 2009 Trust COA. Such funds shall remain in the Forcey Water Treatment Trust and accrue for the benefit of the CSF and the Department to be used to operate and maintain the Treatment Systems or as the Department and Trustee see fit to benefit waters of the Commonwealth.

- 9. All of the defined terms in this Second COA Amendment shall have the same meaning ascribed to them in the 2009 Trust COA.
- 10. Except as modified herein by this Second COA Amendment, all other provisions of the 2009 Trust COA and the First COA Amendment shall remain in full force and effect.

11. Execution of Agreement.

This Second COA Amendment may be signed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to Consent Order and Agreement be executed by their duly authorized representatives. The undersigned Representatives of Forcey Coal certify under penalty of law, as provided by 18 Pa.C.S. § 4904, that they are authorized to execute this Second Amendment to Consent Order and Agreement on behalf of Forcey Coal; that Forcey Coal consents to the entry of this Second Amendment to Consent Order and Agreement as a final ORDER of the Department; and that Forcey Coal hereby knowingly waives its rights to appeal this Second Amendment to Consent

Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, the Act of July 13, 1988, P.L. 530, No 1988-94, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa.C.S. § 103(a) and Chapters 5A and 7A; or any other provision of law. Signature by Forcey Coal's attorney certifies only that the agreement has been signed after consulting with counsel.

FOR FORCEY COAL, INC:

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF **ENVIRONMENTAL PROTECTION:**

Paul A Kephart,

District Mining Manager

Mshanon District Mining Office

L∦nn H. Forcey, Vice President and

Secretary

Robyn Katzman Bowman

Assistant Counsel

Southcentral Region Office of Chief

Counsel

William T. Gorton III, Esq.

Stites & Harbison

Attorney for Forcey Coal, Inc.

EXHIBIT LIST

EXHIBIT A	2009 Trust COA
EXHIBIT B	First COA Amendment
D-14 Treatment Sy	ystem Exhibits
EXHIBIT C-1	Aerial map depicting location of D-14 Discharge
EXHIBIT C-2	Raw Water Quality Sample Results for D-14 Discharge
EXHIBIT C-3	As-Built design plan depicting configuration of D-14 Treatment System
EXHIBIT C-4	Consent to Right of Entry from Dolores A. Cable
EXHIBIT C-5	AMDTreat Cost Estimates for D-14 Treatment System
EXHIBIT C-6	AMDTreat Recapitalization Cost Worksheet and Schedule for D-
	14 Treatment System
EXHIBIT C-7	AMDTreat Treatment Bond/Trust Calculator for D-14 Treatment
	System
D-7 Treatment Sys	stem Exhibits
EXHIBIT C-1	Aerial map depicting location of D-7 Discharge
EXHIBIT D-1	Raw Water Quality Sample Results for D-7 Discharge
EXHIBIT D-2	As-Built design plan depicting configuration of D-7Treatment
	System
EXHIBIT D-3	Contractual Consent of Landowner from Robert J. Tepke
EXHIBIT D-4	AMDTreat Cost Estimates for D-7 Treatment System
EXHIBIT D-5	AMDTreat Recapitalization Cost Worksheet and Schedule for
	D-7 Treatment System
EXHIBIT D-6	AMDTreat Treatment Bond/Trust Calculator for D-7 Treatment
	System
P-4 Treatment Sys	tem Exhibits
EXHIBIT E-1	Aerial map depicting location of P-4 Discharge
EXHIBIT E-2	Raw Water Quality Sample Results for P-4 Discharge
EXHIBIT E-3	As-Built design plan depicting configuration of P-4 Treatment
	System
EXHIBIT E-4	Consent to Right of Entry from Eric and Jodi Porter and Brandon Ball
EXHIBIT E-5	AMDTreat Cost Estimates for P-4 Treatment System
EXHIBIT E-6	AMDTreat Recapitalization Cost Worksheet and Schedule for P-4
	Treatment System
EXHIBIT E-7	AMDTreat Treatment Bond/Trust Calculator for P-4 Treatment
	System
P-9 Treatment Sys	tem Exhibits

EXHIBIT E-1 EXHIBIT F-1 Aerial map depicting location of P-9 Discharge Raw Water Quality Sample Results for P-9 Discharge

EXHIBIT F-2	As-Built design plan depicting configuration of P-9 Treatment
	System
EXHIBIT E-4	Consent to Right of Entry Forms for Porter Operation
EXHIBIT F-3	AMDTreat Cost Estimates for P-9 Treatment System
EXHIBIT F-4	AMDTreat Recapitalization Cost Worksheet and Schedule for P-9
	Treatment System
EXHIBIT F-5	AMDTreat Treatment Bond/Trust Calculator for P-9 Treatment
	System

Global Treatment Trust Exhibits

EXHIBIT G	Combined Global Treatment Bond/Trust Calculator
EXHIBIT H	Participation with Clean Streams Foundation, Inc.
EXHIBIT I	Bill of Sale and License Agreement Including Inventory of the
	Equipment, Facilities and Other Personal Property

EXHIBIT A

094066

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:

Forcey Coal, Inc.

:

SMP No. 17010109 (Buterbaugh 2 Mine)

P.O. Box 225

SMP No. 17990112 (Buterbaugh 1 Mine)

Madera, PA 16661

Bigler Township, Clearfield County

Alternative Financial Assurance Mechanism

POST-MINING TREATMENT TRUST CONSENT ORDER AND AGREEMENT

- A. The Department is the agency with authority to administer and enforce the Surface Mining Conservation and Reclamation Act, Act of May 31, 1945, P.L. 1198, as amended, 52 P.S. §§ 1396.1-1396.19a ("Surface Mining Act"); the Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, P.L. 31, as amended, 52 P.S. §§ 1406.1-1406.21 ("Mine Subsidence Act"); the Coal Refuse Disposal Control Act, Act of September 24, 1968, P.L. 1040, as amended, 52 P.S. §§ 30.51-30.206 ("Coal Refuse Disposal Act"); The Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §§ 691.1-691.1001 ("Clean Streams Law"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code"); and the rules and regulations ("Rules and Regulations") promulgated thereunder.
- B. Pursuant to § 4(d.2) of the Surface Mining Act, 52 P.S. § 1396.4(d.2), the Department may establish alternative financial assurance mechanisms which shall achieve the objectives and purposes of the bonding program. These mechanisms include the establishment

EXHIBIT B

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:

Forcey Coal, Inc. : SMP No. 17010109 (Buterbaugh 2 Mine)
P. O. Box 225 : SMP No. 17990112 (Buterbaugh 1 Mine)
Madera, PA 1661 : SMP No. 17050109 (Delarme Mine)

: Bigler and Bloom Townships, Clearfield County: Alternative Financial Assurance Mechanism

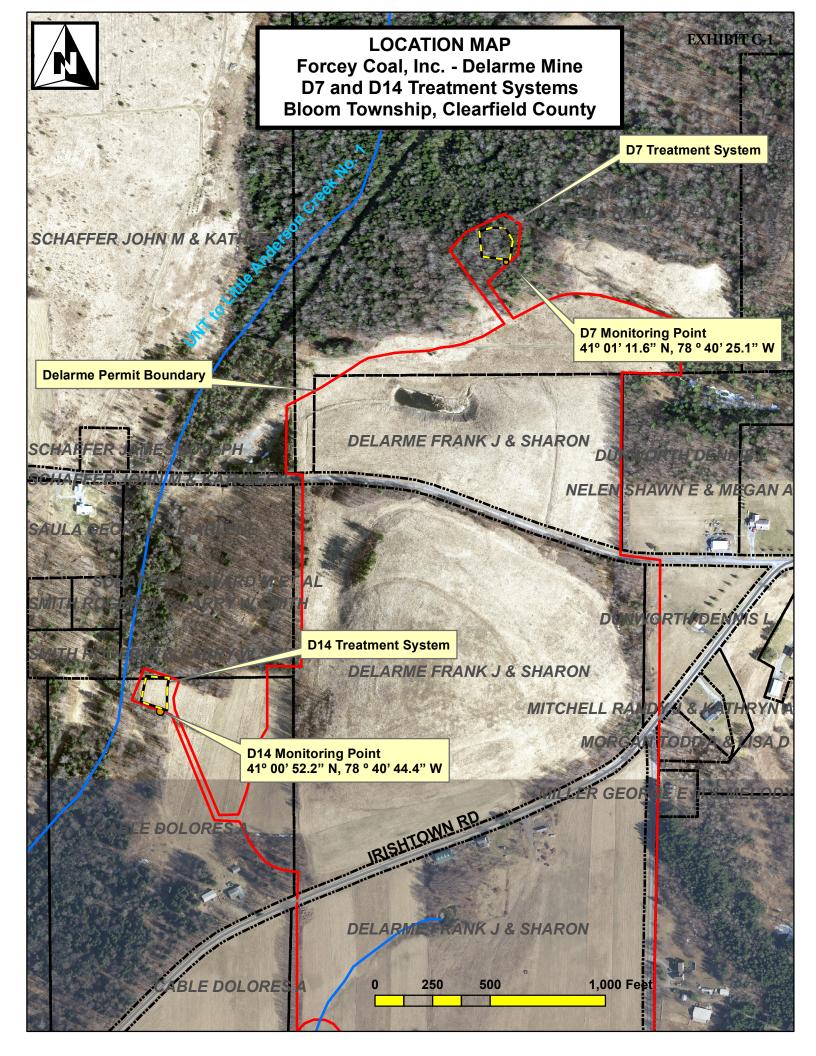
FIRST AMENDMENT TO POSTMINING TREATMENT TRUST CONSENT ORDER AND AGREEMENT

This First Amendment Consent Order and Agreement is entered into this ______ day of _______,

2014, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection

("Department"), and Forcey Coal Inc. ("Forcey Coal")

- 1. On August 18, 2009, the Department and Forcey Coal entered into a Post Mining Treatment Consent Order and Agreement ("2009 COA").
- 2. The Department and Forcey Coal are entering with this First Amendment to the 2009 COA to add a new site, the Delarme Mine, to sites covered by the trust established by the 2009 COA.
- 3. On September 22, 2006, the Department issued Surface Mining Permit 17050109 to Forcey Coal for the Delarme Mine which is located in Bloom Township, Clearfield County. The SMP included, as Part A, NPDES Permit No. PA0256293. The SMP and NPDES permits were renewed on September 22, 2011.
- 4. On November 19, 2013, the Permit was revised to identify and include monitoring point D-14 and the Delarme Mine Treatment System.
- 5. In June 2011, Forcey Coal completed coal removal operations at the Delarme Mine and backfilled and reclaimed the site.
- 6. On August 14, 2013, the Department determined that D-14, a water monitoring point, was degraded as a result of coal removal operations at the Delarme Mine. D-14 is located in the West side of the permitted area near the Unnamed Tributary to Little Anderson Creek as shown on Exhibit 9.0 that is part of SMP



MP D-14

Concentrations and Loads Report for 17050109/MP D-14 Forcey Porter Mine

42.5

Median

Sample Results, Concentrations in mg/L

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (mg/L)	Alk (mg/L)	Fe (mg/L)	Hot Acidity (mg/L)	Mn (mg/L)	рН	SO4 (mg/L)
D-14	4407	310	6/24/2015	50	0.50	22.40	0.30	0.00	2.70	6.00	114.10
D-14	4407	358	8/25/2016	2	0.50	19.00	0.30	-5.20	4.05	5.60	227.70
D-14	4407	485	11/28/2017	20	0.50	22.20	0.30	0.20	3.56	5.50	216.70
D-14	4407	504	4/25/2018	50	0.50	29.80	0.30	-11.80	5.42	5.60	347.80
D-14	4407	529	9/5/2018	10	0.50	37.00	0.30	-24.40	7.00	6.10	379.70
D-14	4407	569	5/3/2019	50	0.30	23.00	0.10	-9.00	3.60	5.70	230.60
D-14	4407	584	6/20/2019	80	0.50	25.20	0.30	-14.00	3.01	5.70	210.50
D-14	4407	623	12/11/2019	50	0.50	15.80	0.30	3.40	1.21	5.20	122.10
D-14	4407	638	3/24/2021	35	0.50	18.60	0.30	-7.20	1.57	5.50	177.70
D-14	4407	646	6/16/2021	25	0.50	24.80	0.30	-12.60	2.53	5.60	217.00
			Concentration Information								
			Average	37.20	0.48	23.78	0.28	-8.06	3.46	5.65	224.39
			Max	80	0.50	37.00	0.30	3.40	7.00	6.10	379.70

22.70

Loadings (lb/day)

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (lb/day)	Alk (lb/day)	Fe (lb/day)	Hot Acidity (lb/day)	Mn (lb/day)	SO4 (lb/day)
D-14	4407	310	6/24/2015	50	0.30	13.46	0.18	0.00	1.62	68.56
D-14	4407	358	8/25/2016	2	0.01	0.46	0.01	-0.12	0.10	5.47
D-14	4407	485	11/28/2017	20	0.12	5.34	0.07	0.05	0.86	52.09
D-14	4407	504	4/25/2018	50	0.30	17.91	0.18	-7.09	3.26	209.00
D-14	4407	529	9/5/2018	10	0.06	4.45	0.04	-2.93	0.84	45.63
D-14	4407	569	5/3/2019	50	0.18	13.82	0.06	-5.41	2.16	138.57
D-14	4407	584	6/20/2019	80	0.48	24.23	0.29	-13.46	2.90	202.39
D-14	4407	623	12/11/2019	50	0.30	9.49	0.18	2.04	0.73	73.37
D-14	4407	638	3/24/2021	35	0.21	7.82	0.13	-3.03	0.66	74.75
D-14	4407	646	6/16/2021	25	0.15	7.45	0.09	-3.79	0.76	65.20

0.50

		Load Informa	ation			
Average (lb/day)	0.21	10.44	0.12	-3.37	1.39	93.50
Max (lb/day)	0.48	24.23	0.29	2.04	3.26	209.00
Median (lb/day)	0.20	8.66	0.11	-2.98	0.85	70.97

0.30

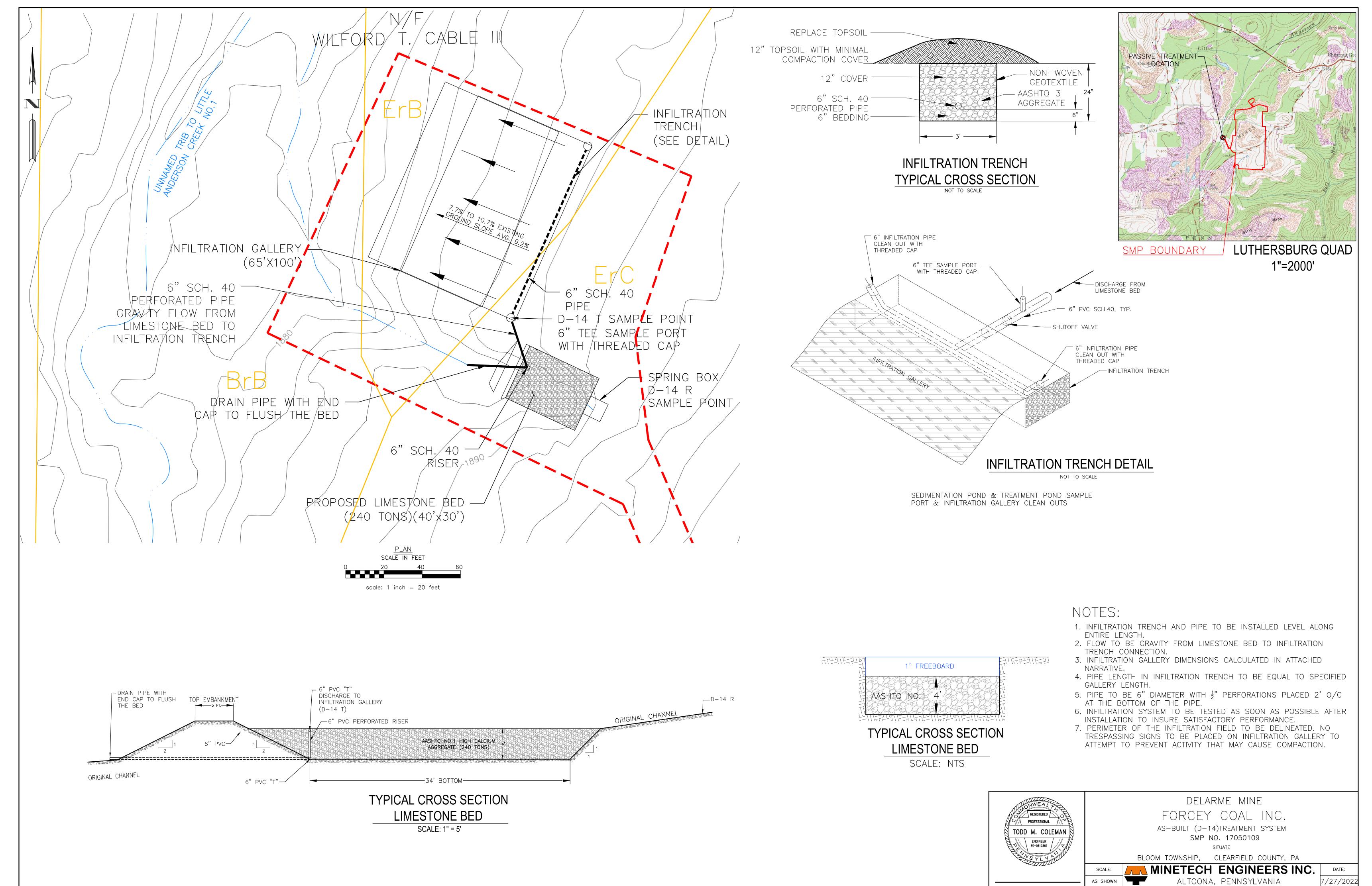
-8.10

3.29

5.60

216.85

7/27/2022



CLEARFIELD COUNTY RECORDER OF DEEDS

Maurene E. Inlow, Recorder Cynthia R. Coudriet - Chief Deputy

P.O. Box 361

1 North Second Street, Suite 103 Clearfield, Pennsylvania 16830

*RETURN DOCUMENT TO:

FORCEY COAL INC 475 BANION ROAD MADERA, PA 16661

Instrument Number - 201802517 Recorded On 3/2/2018 At 12:08:47 PM

- * Instrument Type CONSENT
- * Total Pages 4 Invoice Number - 331562

TOTAL PAID

- * Mortgagor CABLE, DOLORES A
- * Mortgagee FORCEY COAL INC
- * Customer FORCEY COAL INC

*FEES	
STATE WRIT TAX	\$0.50
RECORDING FEES -	\$13.00
RECORDER	
RECORDER IMPROVEMENT	\$3.00
FUND	
COUNTY IMPROVEMENT FUND	\$2.00

\$18.50

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MAY 1 0 2023

DEP Moshannon DMO

I hereby CERTIFY that this document is recorded in the Recorder's Office of Clearfield County, Pennsylvania.



THIS IS A CERTIFICATION PAGE

Do Not Detach

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT

^{* -} Information denoted by an asterisk may change during the verification process and may not be reflected on this page.



Agreement.

Property:

~ n

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF MINING PROGRAM

MAY 1 0 2023

Permit No EP	
Moshannon	DMO

CONSENT TO RIGHT OF ENTRY FOR OPERATION AND MAINTENANCE OF A MINE DRAINAGE TREATMENT FACILITY COVERED BY A BOND OR A POST-MINING DISCHARGE TREATMENT TRUST AGREEMENT

Property Owner(s): List everyone with an ownership interest in the property which is the subject of this

Name: holius (h. Cable Name:
Address: 6333 Prichtown Rd Grampian, Pa Address:
WHEREAS, the Property Owner(s) own surface property containing 42 acres located in RLOOM Township, CLEAT FIELD County, Pennsylvania, and described in Deed Book Volume, Page, in the CLEAT FIELD County Recorder's Office (the Property);
WHEREAS, the Commonwealth of Pennsylvania, Department of Environmental Protection (DEP) is authorized to administer and enforce the Surface Mining Conservation and Reclamation Act, 52 P.S. §§ 1396.1-1396.19a, the Clean Streams Law, 35 P.S. §§ 691.1-691.1001, and their implementing regulations, including requiring the construction, operation and maintenance of facilities designed to remediate the effects of mine drainage;
WHEREAS, $Force y (na) INC.$ ("Operator") conducted surface mining activities on or adjacent to the Property pursuant to Surface Mining Permit No. 10500
WHEREAS, DEP has determined that mine drainage caused by <i>Operator's</i> mining activities is discharging from or passing through the Property, and the mine drainage on the Property is causing pollution, or a danger of pollution, to waters of the Commonwealth;
WHEREAS, Operator is required, under the mining law and its surface mining permit, to construct, operate and maintain mine drainage treatment facilities on a portion of the Property (the Treatment Facility Property), for purposes of treating the pollutional discharge(s);
WHEREAS, a map showing the boundaries of the Treatment Facility Property is attached as Exhibit A;

WHEREAS, to assure compliance with its legal obligations, *Operator* and DEP [and the Trustee] must have access to the Treatment Facility Property to conduct and/or oversee the mine drainage treatment activities required by law and the mining permit:

institution as an alternative financial assurance mechanism, in order to provide sufficient funds to guarantee Operator's legal obligation to operate and maintain the mine drainage treatment facilities on the Property and the Operator's obligation for long-term treatment, or abatement, of the post-mining pollutional discharge(s) on the

WHEREAS, Operator has posted a bond with the Department, or has established a trust with a financial

WHEREAS, Operator and DEP have requested and the Property Owner(s) is willing to grant Operator and DEP [and Trustee] a right of entry into, under, over and upon the Treatment Facility Property to construct, operate and maintain mine drainage treatment facilities;

WHEREAS, the Property Owner(s) acknowledge that treatment of the mine drainage on the Property will provide benefits to the Property Owner and to the Commonwealth through abatement of a nuisance, restoration of land affected by mining operations, and prevention of pollution to waters of the Commonwealth;

5600-FM-BMP0470 12/2013

NOW THEREFORE, in consideration of the benefits which the Property Owner(s) and the general public will receive, and with the intention of being legally bound, it is agreed as follows:

- 1. Right of Entry. The Property Owner(s) hereby grants and conveys to *Operator* and DEP [and Trustee], its employees, agents, servants, contractors and subcontractors, a right of entry into, under, over and upon the Treatment Facility Property. This right of entry includes all necessary rights of ingress, egress and regress with all personnel, materials, and equipment needed to perform the discharge treatment activities.
- 2. <u>Duration of Right of Entry.</u> The term of this Right of Entry shall extend for the length of time necessary to complete the discharge treatment activities in accordance with applicable law. It is specifically understood and agreed that the term of this Right of Entry extends for the length of time necessary to operate and maintain all mine drainage treatment facilities on the Treatment Facility Property, and shall only terminate when such treatment facilities are no longer necessary to remediate or prevent pollution to waters of the Commonwealth.
- 3. <u>Insurance</u>. DEP will require *Operator* to obtain and keep in force insurance coverage in accordance with the requirements of 25 Pa. Code § 86.168.
- 4. <u>Property Use.</u> During the term of this Right of Entry, the Property Owner(s) will not, without the written consent of DEP, make any use of the Property which will interfere with the construction, operation or maintenance of the mine drainage treatment facilities installed on the Treatment Facility Property.
- 5. Notification. This Consent to Right of Entry shall be recorded by Operator in the County Recorder's Office within thirty days of its execution. In the event that the Property Owner(s) intends to sell, lease, or otherwise transfer any interest in the Property prior to the termination of this Right of Entry, the Property Owners shall advise the prospective owner or lessee of the terms and conditions of this Right of Entry. The Property Owner(s) shall advise DEP, by notifying the Department representative whose signature appears below or his successor, of the intent to sell the Property prior to any sale.
- 6. <u>Representation of Interests</u>. The Property Owners represent that they are the only persons authorized to grant access to the Treatment Facility Property.
- 7. <u>Binding on Successors</u>. All the covenants, representations, consents, waivers and agreements contained herein shall be binding upon and inure to the benefit of the parties and their heirs, successors and assigns.

David D. Forces Title: President	Y leaf & Eller Witness
For the Department of Environmental Protection: Malully Mull Namel Michael Cur Smith Title: District Mining Manage	Archar L Stewart Witness

IN WITNESS WHEREOF, each of the parties set its respective hand and seal, for itself, its heirs, executors, administrators, successors and assigns, intending to be legally bound, this 244 day of November 2014.

The Property Owner(s)

(Each owner sign and print
their name under the signature.)

For [Operator]

Molores A. Cable Dolores a Cable

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MAY 1 0 2023

DEP
Moshannon DMO

ACKNOWLEDGEMENT

	MOINTONELEDOLINE	
STATE OF Clearfield	: : ss :	
	20 <u>4 4</u> , before me, the undersigned	Notary, personally appeared
Dolores A. Cable	(Name (s))	
known to me (or satisfactorily proven) to be acknowledged that (he, she or they) have execut	the person(s) whose name(s) is/are substed the same and desire it to be recorded.	scribed to this instrument, and who
(SEAL): (SEAL): Notary Public	My Commission Expires: _	NOTARIAL SEAL CONSTANCE L. SMITH, Notary Public Bigler Township, Clearfield Co., PA My Commission Expires, October 24, 2017

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DEP Moshannon DMO

Printed on 05/10/2023

Company Name Forcey Coal, Inc.

Project <u>DeLarme D14</u>

Site Name Forcey Delarme D14

AMD TREAT

Costs

AMD TREAT MAIN COST FORM



Costs	AN	ו טו	REAL	MAIN	C
Passive Treatment	A	<u>s</u>	71111]
Vertical Flow Pond			\$0		
Anoxic Limestone Drain			\$(
Anaerobic Wetlands				\$0	
Aerobic Wetlands				\$0	
Manganese Removal Bed	1	. 0		\$8,553	
Oxic Limestone Channel				\$0	
Limestone Bed				\$0	1
BIO Reactor				\$0	
Passive Subtotal:				\$8,553	l
Active Treatment					
Caustic Soda				\$0	
Hydrated Lime			£1.	\$0	1
Pebble Quick Lime				\$0	
Ammonia	74			\$0	
Oxidants				\$0	
Soda Ash				\$0	
Active Subtotal:				- \$0	
Ancillary Cost					
Ponds				\$0	
Roads				\$0	
Land Access				\$0	
Ditching				\$0	
Engineering Cost	1	0		\$1,070	
Ancillary Subtotal:				\$1,070	
Other Cost (Capital Cost)			2-4 170	\$2,144	
Total Capital Cost:	4		:	\$11,767	
Annual Costs	-]
Sampling	1	0		\$1,264	
Labor	1	0		\$455	
■ Maintenance	1	0		\$374	
Pumping				\$0	
Chemical Cost				\$0	
Oxidant Chem Cost			\$0		
Sludge Removal				\$0	
Other Cost (Annual Cost)				\$0	
Land Access (Annual Cost)				\$0	
Total Annual Cost:				\$2,093	
Other Cost	1	0			

Water Quality	1-1010 114 21-11	
Design Flow	55.00	gpm
Typical Flow	37.00	gpm
Total Iron	0.00	mg/L
Ferrous Iron	0.00	mg/L
Aluminum	0.16	mg/L
Manganese	7.00	mg/L
pH	5.50	su
Alkalinity	26.80	mg/L
TIC	0.00	mg/L
Calculate Net Acidity		
♠ Enter Hot Acidity manually		
Acidity	-10.00	mg/L
Sulfate	318.00	mg/L
Chloride	0.00	mg/L
Całcium	0.00	mg/L
Magnesium	0.00	mg/L
Sodium	0.00	mg/L
Water Temperature	20.00	С
Specific Conductivity	729.00	uS/cm
Total Dissolved Solids	0.00	mg/L
Dissolved Oxygen	0.01	mg/L
Typical Acid Loading	-1.0	tons/yr
<u> </u>		
		:

Total Annual Cost: per 1000 Gal of H2O Treated \$0.107

Project <u>DeLarme D14</u>

Site Name Forcey Delarme D14

AMD TREAT MANGANESE REMOVAL BED



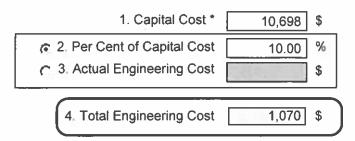
MN Removal Bed Name D14

		SIZING METHO	IODS Select One	1. Retention Time	days
	Tons of Limesto	one Needed 1,160.93	.93 C Based on Retention Time	2. Limestone Needed	240 tons
	Tons of Limesto	one Needed 240.00	0.00	3. Length at Top of Freeboard	(IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	Tons of Limesto	one Needed 3,124.22	.22 C Based on Dimensions	4. Width at Top of Freeboard	ft
	Tons of Limesto	one Needed 0.00	0.00 C Based on Kinetics	5. Rate Constant (k)	hr/ft
	Opening Screen Water Parameters	6. Stone Dia		Manganese Removal Bed Si 23. Top Length at Freeboard	izing Summaries
1	Influent Water	8. % Void Space of Limeston	\$	23. Top Width at Freeboard	35.09 ft
	Parameters that Affect	9 Density of Loose Lime		25. Freeboard Volume	78 yd3
	MN Removal Bed	10. Limestone Uni	Jnit Cost 27.00 \$/ton	26. Limestone Surface Area	1,933.4 ft2
	Calculated Acidity -13.01 mg/L	11. Limestone Placement Uni		27. Limestone Volume	188.5 yd3
	Alkalinity	12. Freeboard	rd Depth 1.00 ft	28. Tons of Limestone	240 ton:
	26.80 mg/L	13. Limestone	ne Depth 4,00 ft	29. Excavation Volume	188 yd3
		14. Excavation Uni	Jnit Cost 5.50 \$/yd3	30. Clear and Grub Area	0.0 acres
	Calculate Net		Run Rise	31. Liner Area	0 ft2
	Acidity (Acid-Alkalinity)	15. Slope of Pond Sid	Sides 2.0 1	32. Theoretical Retention Time	0.20 days
	Enter Net Acidity manually	Liner Cost		Manganese Removal Bed	Sub-Totals
	Net Acidity	No Liner		33. Limestone Cost	6,480 \$
ı	(Hot Acidity)	16. Clay Liner Ur	Unit Cost \$/yd3	34. Limestone Placement Cost	1,036 \$
ı	-10.00 mg/L	17. Thickness of Cla	Clay Liner ft	35. Excavation Cost	1,037 \$
ı	Design Flow			36. Liner Cost	0 \$
	55.00 gpm Typical Flow	18. Synthetic Liner Ur	Unit Cost \$/yd2	37. Clear and Grub Cost	0 \$
	37.00 gpm	☐ 19. Clearing and Gr	Grubbing?	38. Total Cost	8,553 \$
	0.00 mg/L	20. Land Multiplier	ratio		
	Aluminum 0.16 mg/L	21. Clear/Grub Acre	cres	Record Number 1	of 1
	Manganese	22. Clear and Grub Un	Unit Cost \$/acre	Record Number	
۱	7.00 mg/L			1	

Project <u>DeLarme D14</u>

Site Name Forcey Delarme D14

AMD TREAT ENGINEERING COST



* Total Capital Cost minus Engineering and **Land Access Capital Cost**

Printed on 05/10/2023



Project <u>DeLarme D14</u>

Site Name Forcey Delarme D14

AMD TREAT **SAMPLING**



Sampling Name D14

Estimate Sampling Cost 1. Unit Labor Cost 35.00 \$/hr 2. Collection Time per Sample 0.17 hours/sample 0.00 hr 3. Travel Time 4. Sample Frequency 2.67 samples/mo 5. Lab Cost Per Sample 33.50 \$/sample 6. Number of Sample Points 1 points ← Enter Established Annual Sampling Cost 7. Actual Annual Sampling Cost \$

Sampling Sub-Totals

- 1,073 \$ 8. Yearly Sample Analysis Cost
 - 9. Yearly Travel Cost 0 \$
 - 10. Yearly Collection Cost 191 \$

11. Sampling Cost 1,264 \$

Record Number 1 of 1

Project <u>DeLarme D14</u>

Site Name Forcey Delarme D14

AMD TREAT

LABOR

Labor Name D14. Inspection, sampling, flushing



© Estimate Labor Cost
Site Visits per Week 0.25
Site Labor Time per Visit 0.50 hours
3. Travel Time per Visit 0.50 hours
4. Unit Labor Cost 35.00 \$/hour
← Enter Established Annual Labor Cost
5. Actual Annual Labor Cost \$
6. Total Cost 455 \$

Record Number 1 of 1

Project DeLarme D14

Site Name Forcey Delarme D14

AMD TREAT

MAINTANENCE

1. Percent of Active Cost 3.50 %

2. Percent of Passive Cost 3.50 %

3. Percent of Ancillary Cost * 3.50 %

4. Percent of Other Capital Cost 3.50 %

C Enter Established Annual Maintenance Cost

5. Annual Maintenance Cost

Maintenance Sub-Totals

6 Total Maintenance Active Cost 0 \$

7. Total Maintenance Passive Cost 299 \$

8. Total Maintenance Ancillary Cost 0 \$

9. Total Maintenance Other Capital Cost 75 \$

> 10. Total Maintenance Cost 374 \$

* Ancillary Cost does int include Cost for Land Access and Engineering Cost



Project DeLarme D14

Site Name Forcey Delarme D14

AMD TREAT OTHER COST



AMDTREAT

(Oher Cost Name D14								
	A. Description of Item	B. Unit Cost Per Item	C. Quantity	D. Total Item Cost	E. Capital Cost Annual Cost				
1.	6" Schedule 40 pipe	3.00	140	420	Capital Cost Annual Cost				
2.	6" Schedule 40 perf pipe (NDA trench)	1.90	100	190	Capital Cost Annual Cost				
3.	6" perforated riser pipe	1.90	4	7	C Annual Cost				
4.	6" T (sample port & in limestone bed)	30.00	2	60	Capital Cost Annual Cost				
5.	Aashto 3 Aggregate (28 cy = 35.6 tons)	30.00	36	1,080	Capital Cost Annual Cost				
6.	Non-woven geotextile NDA (1100 sq ft)	0.20	1100	220	Capital Cost Annual Cost				
7.	6" PVC pipe adapter	18.00	2	36	Capital Cost Annual Cost				
8.	6" PVC threaded cap	35.00	2	70	Capital Cost Annual Cost				
9.	6" PVC 45 degree elbow	30.00	2	60	Capital Cost Cannual 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				
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

Curent Capital Cost	2,144 \$
Current Annual Cost	0 \$

Total Capital Cost	2,144 \$
Total Annual Cost	0 \$

Project DeLarme D14

Site Name Forcey Delarme D14

AMD TREAT RECAPITIZALITION COST



AMDTREAT

Calculation Period	75 yrs	Inflation Rate	3.10 %	Net Return Rate	8.43 %
Recapitizalition Name	Trust @ 8.43%				

A.	В	С	D	E	F	G
Description of Item	Unit Cost Per Item	Quantity	Total Item Cost	Life Cycle	Number of Periods	Total PV
Limestone (Mn removal Bed)	6,480	1	6,480	20	3	3,542
2. 6" PVC pipe & fittings (Mn removal Bed)	844	1	844	25	3	327
3. Limestone stir& clean (240 tons =188 cy)	35	188	6,580	7	10	15,095
4.	0	0	0	0	0	0
5.	0	0	0	0	0	0
6.	о О	0	0	0	22 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
112	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

13,904 \$ PV Grand Total Total Capital Cost 18,964

Project DeLarme D14

Site Name Forcey Delarme D14

72,150

50

68,266

75 Life of Trust Fund Inflation Rate 3.10 %

AMD TREAT RECAPITIZALITION COST



% Return Rate 8.43 AMDTREAT **Payout** Year **Trust Fund** Trust Fund **Payout** Trust Fund **Trust Fund** Year Schedule Schedule Growth Growth Growth Growth **Fund Before Payout Fund After Payout Fund Before Payout Fund After Payout** 18.964 Initial Fund Amount 18.964 74,021 0 20,562 20.562 0 51 74,021 1 0 80.261 80,261 0 22,296 22.296 52 2 24,175 24,175 0 87,027 87,027 0 3 53 0 94,364 94,364 0 26,213 26,213 4 54 0 102,319 102,319 0 28.423 28,423 55 5 74,577 36,367 0 30,819 30,819 56 110,944 6 80,864 0 33,418 25.270 8.147 80,864 7 57 0 87,681 87,681 8 27,400 27,400 0 58 0 29,710 29 710 0 59 95,072 95,072 9 32,215 32,215 0 60 103,087 62,620 40,466 10 0 67,899 67.899 0 34,930 34,930 61 11 37,875 37,875 0 73,623 73,623 0 62 12 34,798 45.032 0 79,830 13 41,068 41,068 63 44,530 34,441 10,088 64 37,731 37,731 0 14 40,912 0 37,344 37,344 0 40,912 65 15 0 44,361 44,361 0 40.493 40,493 66 16 0 43,906 43,906 0 67 48,101 48,101 17 0 0 47,608 47,608 52,156 52,156 68 18 51,621 51,621 0 69 56,552 56,552 0 19 11,932 61,320 5,558 55,761 55,973 44,040 70 20 47,752 35,259 12,492 71 6,027 6,027 0 21 0 0 6,535 6.535 38,232 38,232 22 72 0 7,086 7,086 0 23 41,455 41,455 73 7,684 0 0 7,684 44,950 44,950 74 24 1,810 8,331 -0 8,331 25 48,739 46,928 75 0 0 0 26 50.884 50,884 0 76 0 0 0 55.174 55.174 0 27 77 0 28 59,825 44,356 15,469 78 0 0 0 0 0 48,095 48,095 0 79 29 0 52,150 52,150 0 80 0 0 30 0 0 0 0 56,546 56,546 81 31 0 0 0 0 32 61.313 61,313 82 0 0 0 0 33 66,481 66,481 83 72,086 72,086 0 0 0 0 34 84 0 0 0 19,154 35 78,163 59,008 85 0 0 0 63,982 63,982 0 86 36 0 0 0 37 69.376 69.376 0 87 0 0 0 75.224 75.224 0 88 38 81,566 81,566 0 89 0 ٥ 0 39 0 0 0 21,974 88,442 66,467 40 90 0 0 0 72,071 72,071 0 91 41 0 0 0 42 78,146 54,428 23,718 92 59.016 59.016 0 93 0 0 0 43 0 0 0 0 63,991 63,991 94 44 0 0 0 0 69.385 69,385 95 45 0 0 0 75,235 75,235 0 96 46 0 0 0 0 81,577 81,577 97 47 88,454 0 0 0 0 48 88,454 98 0 0 0 29,369 49 95,911 66,541 99 3,883 0 0 0

100

5/9/2023

TREATMENT BOND/TRUST CALCULATOR

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

Date (mm/dd/yy):

Prepared For: Forcey - DeLarme

Treatment System(s) ID: D14

Rec Bond Rate of Return:

Remaining Time on Permit:

Inflation Rate: 3.1% Yrs to Treat start: 0 Annual Treatment Cost: \$2,093.00 Trust Fees: 1.50% Bond (not needed for rec): \$0.00 Investment Ratios: 80% stock: bond: 20% Effective Rate of Return: 8.43% Volatility Index: 1.16

6.00%

1 years

O&M only	Total <u>with Recap</u>	with Recap <u>& Insurance</u>	
\$76,567.64	\$116,315.62	\$121,272,49	bond in year
\$76,567.64	\$116,315.62	\$121,272.49	2
\$47,979.10	\$66,943.10	\$68,477.68	trust in year 1
	\$76,567.64 \$76,567.64	\$76,567.64 \$116,315.62 \$76,567.64 \$116,315.62	\$76,567.64 \$116,315.62 \$121,272.49 \$76,567.64 \$116,315.62 \$121,272.49

PV of Recap (todays \$\$) @	8.43%	Eff RoR &	3.1% Inf:	\$18,964.00 for trust in year 1	*-		Maria s
PV of Recap (todays \$\$) @	6.00%	Eff RoR &	3.1% Inf:	\$34,121.00 for bond in year 1	\$39,747.98	for bond in year	2

Liability Insurance Factor @	\$1.00 per year, per \$1000 in the total PV of the Trust:	\$66.94 per year	PV Insurance:	\$1,534.58
Liability Insurance Factor @	\$1.00 per year, per \$1000 in total Bond:	\$116.32 per year	PV Insurance:	\$4,255.14

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 D-1

Concentrations and Loads Report for 17050109/MP D7 Forcey Porter Mine

Sample Results, Concentrations in mg/L

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (mg/L)	Alk (mg/L)	Fe (mg/L)	Hot Acidity (mg/L)	Mn (mg/L)	рН	SO4 (mg/L)
D7	4407	621	12/11/2019	10	1.88	5.20	0.30	19.60	8.20	4.40	187.50
D7	Mahaffey lab		11/23/2020	2.4	1.79	1.00	0.05	25.00	8.22	4.20	223.00
D7	Mahaffey lab		12/4/20520	4.7	1.89	1.00	0.05	26.00	9.90	4.00	220.00
D7	Mahaffey lab		2/4/2021	11	2.12	1.00	0.05	31.00	10.51	4.00	251.00
D7	Mahaffey lab		3/9/2021	60	1.46	0.00	0.05	22.00	6.06	5.00	175.00
D7	4407	636	3/24/2021	25	2.68	7.40	0.30	21.80	7.59	4.60	248.90
D7	Fairway Lab		4/19/2021	23	2.90	0.00	0.19	30.00	10.50	4.20	212.00
D7	Fairway Lab		5/10/2021	30	2.38	0.00	0.72	27.00	10.70	4.50	226.00
D7	Fairway Lab		6/2/2021	17	2.34	0.00	0.19	16.00	9.12	4.40	227.00
D7	4407	644	6/16/2021	15	2.21	6.80	0.30	28.40	10.08	4.40	356.90
D7	Fairway Lab		7/10/2021	13.5	2.17	0.00	0.19	14.00	10.20	4.70	204.00
D7	Summit Lab		10/2/2021	13	1.38	0.00	0.06	14.00	8.30	4.50	228.00
D7	Summit Lab		3/11/2022	37	1.90	0.00	0.05	26.00	7.10	4.40	205.00
D7	4407	665	3/31/2022	20	2.75	9.60	0.30	28.40	9.44	4.40	211.40
	Concentration Information										
			Average	20.11	2.13	2.29	0.20	23.51	8.99	4.41	226.84
			Max	60	2.90	9.60	0.72	31.00	10.70	5.00	356.90
			Median	16	2.15	0.50	0.19	25.50	9.28	4.40	221.50

Loadings (lb/day)

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (lb/day)	Alk (lb/day)	Fe (lb/day)	Hot Acidity (lb/day)	Mn (lb/day)	SO4 (lb/day)
D7	4407	621	12/11/2019	10	0.23	0.62	0.04	2.36	0.99	22.53
D7	Mahaffey lab		11/23/2020	2.4	0.05	0.03	0.00	0.72	0.24	6.43
D7	Mahaffey lab		12/4/20520	4.7	0.11	0.06	0.00	1.47	0.56	12.43
D7	Mahaffey lab		2/4/2021	11	0.28	0.13	0.01	4.10	1.39	33.18
D7	Mahaffey lab		3/9/2021	60	1.05	0.00	0.04	15.86	4.37	126.19
D7	4407	636	3/24/2021	25	0.80	2.22	0.09	6.55	2.28	74.78
D7	Fairway Lab		4/19/2021	23	0.80	0.00	0.05	8.29	2.90	58.60
D7	Fairway Lab		5/10/2021	30	0.86	0.00	0.26	9.73	3.86	81.48
D7	Fairway Lab		6/2/2021	17	0.48	0.00	0.04	3.27	1.86	46.38
D7	4407	644	6/16/2021	15	0.40	1.23	0.05	5.12	1.82	64.34
D7	Fairway Lab		7/10/2021	13.5	0.35	0.00	0.03	2.27	1.65	33.10
D7	Summit Lab		10/2/2021	13	0.22	0.00	0.01	2.19	1.30	35.62
D7	Summit Lab		3/11/2022	37	0.84	0.00	0.02	11.56	3.16	1.96
D7	4407	665	3/31/2022	20	0.66	2.31	0.07	6.83	2.27	1.06

		Load Informa	ation			
Average (lb/day)	0.51	0.47	0.05	5.74	2.05	42.72
Max (lb/day)	1.05	2.31	0.26	15.86	4.37	126.19
Median (lb/day)	0.44	0.01	0.04	4.61	1.84	34.40

EXHIBIT D-2

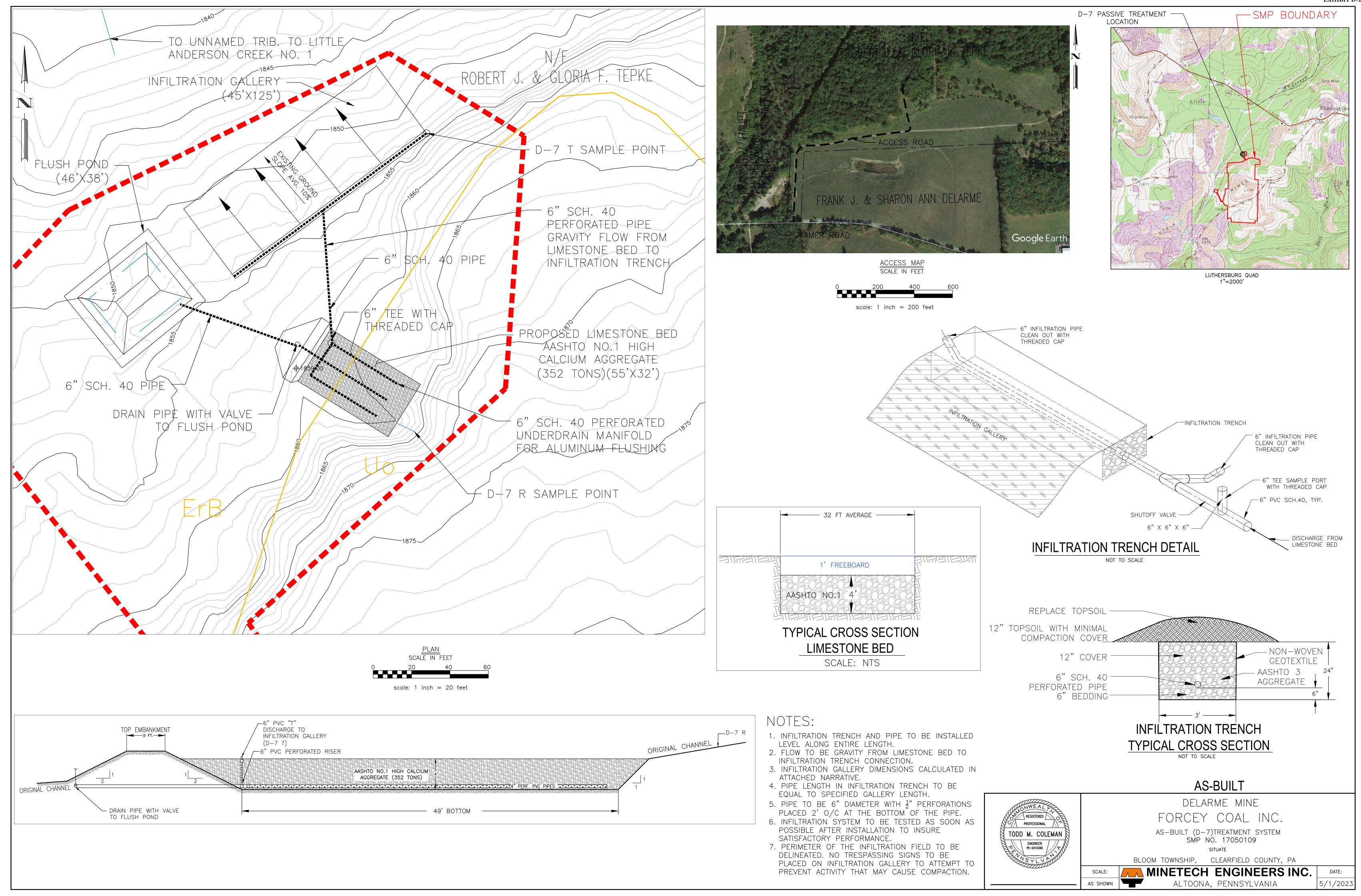


EXHIBIT D-3

CLEARFIELD COUNT RECORDER OF DEEDS

Maurene E. Inlow, Recorder Betty L. Lansberry - Chief Deputy P.O. Box 361

1 North Second Street, Suite 103 Clearfield, Pennsylvania 16830



*RETURN DOCUMENT TO:

Instrument Number - 200816141 FORCEY COAL INC

- Recorded On 10/6/2008 At 1:20:24 PM
- * Instrument Type SUPPLEMENTAL C
- * Total Pages 4
- **Invoice Number 193615** * Grantor - TEPKE, ROBERT J
- * Grantee FORCEY COAL INC
- * Customer FORCEY COAL INC

* FEES

STATE WRIT TAX	\$0.50
RECORDING FEES -	\$13.00
RECORDER	
RECORDER IMPROVEMENT	\$3.00
FUND	
COUNTY IMPROVEMENT FUND	\$2.00
TOTAL PAID	\$18.50

I hereby CERTIFY that this document is recorded in the Recorder's Office of Clearfield County, Pennsylvania.



THIS IS A CERTIFICATION PAGE

Do Not Detach

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT

* - Information denoted by an asterisk may change during the verification process and may not be reflected on this page.

"Supplement C"

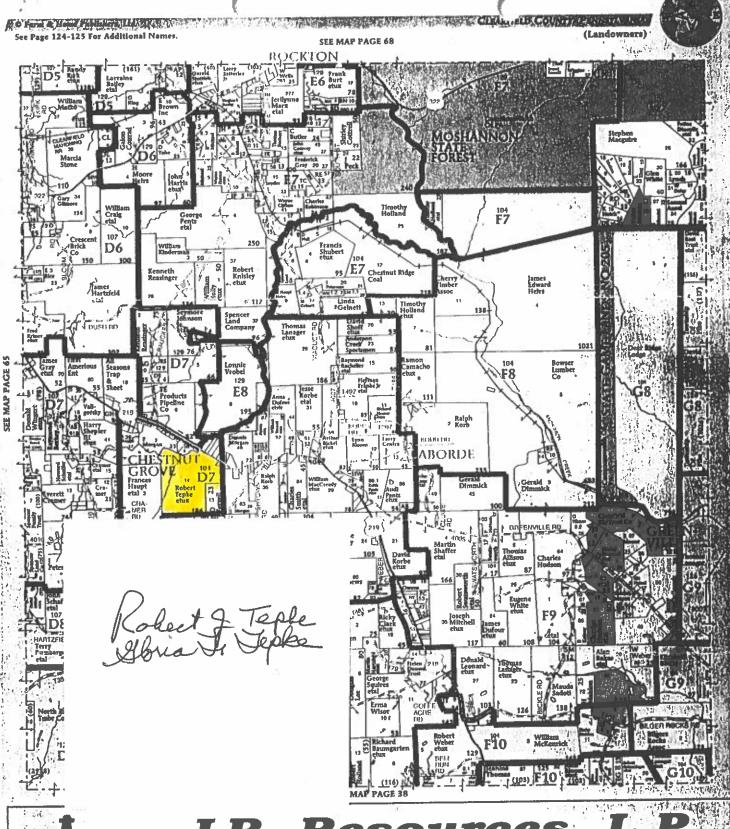
BUREAU OF MINING AND RECLAMATION 7 0 5 0 1 0 9

CONTRACTUAL CONSENT OF LANDOWNER (COAL)

(f) (We), the undersigned, being the owner(s) of acres of land ocated in Bloom Twp Clear Field County, as
(Township, Borough, City)
escribed in the deed(s) recorded in the Recorder of Deeds Office Book(s) and page(s) 104 D 7 0 14 nd shown by crosshatched lines on the map attached hereto which is signed in the original by the landowner upon the landowner upon the original by the landowner upon t
(Name of Mining Operator)
roposes to engage in surface mining activities for which application for permit will be made to the Department of Invironmental Protection and of which application this consent will be made a part, DO HEREBY ACKNOWLEDG HAT THE MINING OPERATOR HAS THE RIGHT TO ENTER UPON AND USE THE LAND FOR THE PURPOSE OF CONDUCTING SURFACE MINING ACTIVITIES. Furthermore, (I) (We), the undersigned, do hereby irrevocable rant to the mining operator and to the Commonwealth of Pennsylvania, the right to enter upon the aforesaid land before eginning the mining activity(ies), during the mining activity(ies) and for a period of five (5) years after the completion of bandonment of the mining activity(ies) for the purposes of inspecting, studying, backfilling, planting and reclaiming the right and abating pollution in accordance with the provisions of the Surface Mining Conservation and Reclamation Activity (Ies) and the Coal Refuse Disposal Act, as amended, rules and regulations promulgated thereundered the provisions of permit(s) issued to the Mining Operator. (I) (We) do hereby grant in addition to the Commonwealth or the aforesaid period of time, a right of entry across any adjoining or contiguous lands owned by (us) (me) in order to ave 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 latter within the police power but does not obligate the Commonwealth to do so, and does not constitute any ownership terest by the Commonwealth in the aforesaid land.
This Consent shall not be construed to impair any contractual agreement between the Mine Operator and the ndowner.
(INSERT ADDITIONAL PROVISIONS OR CROSS OUT)
In witness whereof and intending to legally bind (myself) (ourselves), (my) (our) heirs, successors and assigns, (fig.) have hereunto set (my) (our) hand(s) and seal this
By: Slovia J. Jepke (Signature) GLORIA F. TEPKE

LANDOWNER

STATE OF PA	:			
COUNTY OFWES+140 RELAND	:	ss		
Robert J TEPKP	re me, the	undersigned	Notary, personally appeared F TOPKO	
•		(N	ame (s))	
known to me (or satisfactorily proven) to be the person	n whose na	ame is subso	cribed to this instrument, and v	vho acknowledged thatCommonwealth offershe of they
executed the same and desires it to be recorded.				NOTARIAL SEAL
IN WITNESS WHEREOF, I have hereunto	set my ha	and and offic	iał seal.	GEORGE J. THATCHER, NOTARY PUBLIC
9				MARTSVILLE BOROUGH, COUNTY OF WESTMORELAND MY COMMISSION EXPIRES JANUARY 4, 2010
(SEAL) Notary Public		<u></u> .	My Commission Expires:	(Date)
		LAN	DOWNER	
		LAN	DOWNER	
STATE OF	:	3.66		
COUNTY OF	:	SS		50
On, before	emethei	undersianed	Notary, personally appeared	~
	o 1110, a.o.	arider orgined	itotally, personally appeared	ds.
			ame (s))	
known to me (or satisfactorily proven) to be the person	whose na	ıme is subsc	ribed to this instrument, and w	ho acknowledged that(he, she or they)
executed the same and desires it to be recorded.				(,,,
IN WITNESS WHEREOF, I have hereunto	set my ha	nd and officia	st seal.	
	·			
(SEAL) Notary Public			My Commission Expires:	(Date)
				(A 400 or
ACKN	OWLE	DGEME	NT OF CORPORATION	ONS
		LAND	OWNED	
STATE OF		LANE	OOWNER	
COUNTY OF	:	SS		
COUNTYOF				
On, before m	ie, the und	iersigned No	tary, personally appeared	
				**
who acknowledged (herself) (himself) to be the	EIS		(Title of Person)	of
				, a
	•	of Corporati	•	
corporation, and that (she) (he), as such officer, being this instrument be recorded.	authorized	l ල do so, ex	ecuted the foregoing instrume	nt on behalf of the said corporation and desires tha
IN WITNESS WHEREOF, I have hereunde	r set my ha	and and offic	ial seal.	
(PEAL)	·		Au Commission Eurices:	
(SEAL) Notary Public			My Commission Expires:	(Date)
		11		
This instrument has been recorde	ed in		· · · · · · · · · · · · · · · · · · ·	
County, Pennsylvania, this				
(year), at Book		, Pag	ge(s)	•
(Signed) + (Print Name)			
		=		
(Seal)				





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- Quality Beef Cattle & 4-H Club Calves

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EXHIBIT D-4

Printed on 05/10/2023

Company Name Forcey Coal, Inc.

Project <u>DeLarme D7</u>

Site Name Forcey Delarme D7

AMD TREAT AMD TREAT MAIN COST FORM



Costs	AN	ID T	REAT MAIN (
Passive Treatment	<u>A</u>	<u>s</u>	VIIIIIII.
Vertical Flow Pond			\$0
Anoxic Limestone Drain			\$0
Anaerobic Wetlands			\$0
Aerobic Wetlands			\$0
Manganese Removal Bed			\$0
Oxic Limestone Channel			\$0
Limestone Bed	1	0	\$13,930
BIO Reactor			\$0
Passive Subtotal:			\$13,930
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	1	0	\$497
Roads			\$0
Land Access			\$0
Ditching			\$0
Engineering Cost	1	0	\$1,654
Ancillary Subtotal:			\$2,151
Other Cost (Capital Cost)			\$2,116
Total Capital Cost:			\$18,197
Annual Costs			
Sampling	1	0	\$1,264
Labor	1	0	\$796
Maintenance	1	0	\$579
Pumping			\$0
Chemical Cost			\$0
Oxidant Chem Cost			\$0
Sludge Removal		, .	\$0
Other Cost (Annual Cost)			\$0
Land Access (Annual Cost)			\$0
Total Annual Cost:			\$2,639
Other Cost	1	0	

Water Quality	7 100120 11020 1	_
Design Flow	34,60	gpm
Typical Flow	24.60	gpm
Total Iron	0.20	mg/L
Ferrous Iron	0,00	mg/L
Aluminum	2.00	mg/L
Manganese	9.00	mg/L
pH	4.50	su
Alkalinity	0.00	mg/L
TIC	0.00	mg/L
Calculate Net Acidity		
C Enter Hot Acidity manually		
Acidity	29.62	mg/L
Sulfate	227.00	mg/L
Chloride	0.00	mg/L
Calcium	0.00	mg/L
Magnesium	0.00	mg/L
Sodium	0.00	mg/L
Water Temperature	20.00	C
Specific Conductivity	413.00	uS/cm
Total Dissolved Solids	0.00	mg/L
Dissolved Oxygen	0.01	mg/L
Typical Acid Loading	1.5	tons/yr
,		
_		
Ţ.		117

Total Annual Cost: per 1000 Gal of H2O Treated \$0.203

Project DeLarme D7

Site Name Forcey Delarme D7

Limestone Bed Name D7



LIMESTONE BED (LSB) AMD TREAT

Opening Screen	SIZING M	JETHODS Select One	
■ Water Parameters		 	
	1. Tons of Limestone Needed	87 LSB Based on Acidity Neutralization	
	2. Tons of Limestone Needed 486	C LSB Based on Retention Time	6. Retention Time
Influent Water	3. Tons of Limestone Needed 453	3 C LSB Based on Alkalinity Generation Rate 7. Alkalinity Generation Rate	ion Rate g/m2/day
that Affect I SR	4. Tons of Limestone Needed 352	C LSB Based on Tons Limestone Entered	Needed 352 tons
	5. Tons of Limestone Needed 50	C LSB Based on Dimensions 9. L	ft 10. Width at Top
		of Freeboard	of Freeboard
Z9.62 mg/L	11. % Void Space of LS. Bed 43.00]%	29. Clearing and Grubbing?	LSB Sizing Summaries
0.00 mg/L	12. System Life	s O 30a. Land Multiplier	48. Length at Top of Freeboard 80.87 ft
	13. Limestone Purity 85.00 %	O 30b. Clear/Grub Acres	49. Width at Top of Freeboard 44.43 ft
Calculate Not		31. Clear and Grub Unit Cost	50. Freeboard Volume 124 yd3
Acidity	06 30		51. Water Surface Area 3,108 ft2
(Acid-Alkalinity)		32. Nbr. of Valves	52. Total Water Volume 106 yd3
C Enter Net Acidity	16. Limestone Unit Cost 27.00 \$/ton		54. Limestone Surface Area 2,655 ft2
manually		۵ ا	55. Limestone Volume 276.50 yd3
Net Acidity (Hot Acidity)	[]	34. Total Length of Effluent	56. Excavation Volume 383.1 yd3
29.62 mg/L	18. Slope of Pond Sides 2.0 : 1	35. Pipe Install Rate TVhr	57. Clear and Grub Area 0.0 acr.
	19. Freeboard Depth 1.00 ft	36 Labor Rate	58. Liner Area 797.4 ft2
	20. Free Standing Water Depth 1.0 ft	37. Segment Len. of Trunk Pipe	59. Theoretical Retention Time 11.56 hrs
Typical Flow		38. Trunk Pipe Cost	LSB Cost Summaries
24.60 gpm	25. Excavation Unit Cost 5.50 \$/yd3	39. Trunk Coupler Cost \$\)	60. Siphon System Cost
Total Iron	23. Siphon System Cost 0.00 \$	40. Spur Cost \$\frac{1}{8}\frac{1}{16}\$	61. Limestone Cost 9,504 \$
0.20 mg/L	**************************************	41. Spur Coupler Cost	62. Limestone Placement Cost 1,521 \$
_		42. "T" Connector Cost	63. Excavation Cost 2,107 \$
Manganese Manganese	No Liner	43. Segment Len. of Spur Pipe	64 Liner Cost 0 \$
1/6m 00'6	11. Clay Liner Unit Cost	44, Spur Pipe Spacing	65. Clear and Grub Cost 0 \$
- 1		Custom Piping Costs	66. Valve Cost 0 \$
		Length Diameter Unit Cost	67. Pipe Cost 798 \$
Record Number	13. Synthetic Liner Unit Cost \$\infty\$ \$\infty\$ \$\infty\$	45. Pipe #1	68 Total Cost
1 of 1		At i	000000
		47. Pipe #3	

Project <u>DeLarme D7</u>

Site Name Forcey Delarme D7

AMD TREAT PONDS

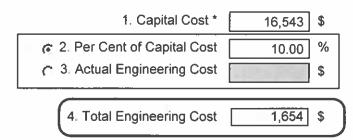


Pond Name Flush Pond		
	Pond Design Based On:	23. Revegetation Cost 1500.00 \$/acre
	C Retention Time	24. Cost of Baffles 0 \$
	Desired Retention Time hours	
	2. Include Sludge Removal?	**
Conspine Sarran	3. Sludge Removal Frequency times/year	Calculated Pond Dimensions per Pond
Opening Screen Water Parameters	4 Titration?	25. Length at Top of Freeboard 46 ft
	5. Sludge Rate gal sludge/	26. Width at Top of Freeboard 38 ft
Influent Water	gal H2O	27. Freeboard Volume 143 yd3
Parameters that Affect		28, Water Volume 84 yd3
Ponds	7.Sludge Density Ibs./gal	29. Estimated Annual Sludge 0 yd3/yr
Calculated Acidity	© Pond Size	30. Volume of Sludge 0 yd3/ removal
29.62 mg/L Alkalinity	8. Pond Length at Top of Freeboard 46.000 ft	per Removal 31. Excavation Volume 0.05 acre ft
0.00 mg/L	9. Pond Width at Top of Freeboard 38,000 ft	32. Excavation Volume 84 yd3
	Run Rise	33. Clear and Grub Area 0.06 acres
Calculate Net	10. Slope Ratio of Pond Sides 2.0	34. Liner Area 0 yd2
Acidity (Acid-Alkalinity)	11. Freeboard Depth 1.0 ft	35. Calculated Retention Time 8 hours
Enter Net Acidity		Ponds Sub-Totals per Pond
manually		36. Excavation Cost 466 \$
Net Acidity	13. Excavation Unit Cost 5.50 \$/yd3	37. Pipe Cost 0 \$
(Hot Acidity)	14. Total Length of Effluent / Influent Pipe 0.00 ft	38. Liner Cost 0 \$
0.00 mg/L	15. Unit Cost of Pipe 10.00 \$/ft	39. Clearing and Grubbing Cost 0 \$
Design Flow	Liner Cost	40. Revegetation Cost 30 \$
34.60 gpm	No Liner	41. Baffle Cost 0 \$
Typical Flow	Clay Liner 16. Clay Liner Unit Cost \$/yd3	41. Ballo 5551
24.60 gpm Total Iron	17. Thickness of Clay Liner ft	42. Estimated Cost 497 \$
0.20 mg/L	← Synthetic Liner	
Aluminum	18. Synthetic Liner Unit Cost \$/yd2	43. Accept Minimum Pond Cost?
2.00 mg/L Manganese	19. Clearing and Grubbing?	The Recommended Minimum Construction Cost of Building a Pond is \$ 5,000
9.00 mg/L	O 20. Land Multiplier ratio	4. Recommended Minimum Cost \$
	21. Clear/Grub Acres acres	3000
Record Number 1 of 1	22. Clear and Grub Unit Cost \$/acre	45. Total Cost 497 \$

Project <u>DeLarme D7</u>

Site Name Forcey Delarme D7

AMD TREAT ENGINEERING COST



* Total Capital Cost minus Engineering and Land Access Capital Cost

Printed on 05/10/2023



Project <u>DeLarme D7</u>

Site Name Forcey Delarme D7

AMD TREAT SAMPLING



Sampling Name

1. Unit Labor Cost	35.00 \$/hr			
Collection Time per Sample	0.17 hours/sample			
3, Travel Time	0.00 hr			
4. Sample Frequency	2.67 samples/mo			
5. Lab Cost Per Sample	33,50 \$/sample			
6. Number of Sample Points	1 points			
C Enter Established Annual Sampling Cost				
7. Actual Annual Sampling Cost	\$			

Sampling Sub-Totals

- 8. Yearly Sample Analysis Cost 1,073 \$
 - 9. Yearly Travel Cost 0 \$
 - 10. Yearly Collection Cost 191 \$

11. Sampling Cost 1,264 \$

Record Number 1 of 1

Project <u>DeLarme D7</u>

Site Name Forcey Delarme D7

AMD TREAT

LABOR



Labor Name D7. Inspection, sampling, flushing

G	Estimate Labor Cost	
	1. Site Visits per Week	0.25
	2. Site Labor Time per Visit	0.75 hours
	3. Travel Time per Visit	1.00 hours
	4. Unit Labor Cost	35.00 \$/hour
C	Enter Established Annual Labor	Cost
	5. Actual Annual Labor Cost	\$

796 \$ 6. Total Cost

Record Number 1 of 1

Project DeLarme D7

Site Name Forcey Delarme D7

AMD TREAT

MAINTANENCE

ℰ Estimate Maintenance Cost

1. Percent of Active Cost	3.50 %
2. Percent of Passive Cost	3.50 %
3. Percent of Ancillary Cost *	3.50 %
4. Percent of Other Capital Cost	3.50 %

C Enter Established Annual Maintenance Cost

5. Annual Maintenance Cost

Maintenance Sub-Totals

- 6 Total Maintenance Active Cost 0
- 7. Total Maintenance Passive Cost 488 \$
- 8. Total Maintenance Ancillary Cost 17 \$
- 9. Total Maintenance Other Capital Cost 74 \$
 - 10. Total Maintenance Cost 579 \$



^{*} Ancillary Cost does int include Cost for Land Access and Engineering Cost

Project <u>DeLarme D7</u>

Site Name Forcey Delarme D7

AMD TREAT OTHER COST



(Oher Cost Name D7		-		
	A. Description of Item	B. Unit Cost Per Item	C. Quantity	D. Total Item Cost	E. Capital Cost Annual Cost
1.	Valve for flush pond	200.00	1	200	Capital Cost Annual Cost
2.	6" Schedule 40 perf pipe (trench0	1.90	125	237	C Capital Cost Annual Cost
3.	6" PVC threaded cap	35.00	1	35	Capital Cost Annual Cost
4.	6" T (sample port0	30.00	1	30	Capital Cost Annual Cost
5.	Aashton 3 Aggregate (34.7 cy = 44.2 tons	30.00	44	1,320	Capital Cost Annual Cost
6.	Non-woven geotextile (1375 sq ft)	0.20	1375	275	C Capital Cost C Annual Cost
7.	6" PVC pipe adapter	18.00	1	18	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	C Capital Cost C Annual Cost
12.		0.00	0	0	Capital Cost Annual Cost
13.	1.0	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

Curent Capital Cost	2,116	\$
Current Annual Cost	0	\$

Total Capital Cost	2,116 \$
Total Annual Cost	0 \$

EXHIBIT D-5

Project DeLarme D7

Site Name Forcey Delarme D7

AMD TREAT RECAPITIZALITION COST



AMDTREAT

Calculation Period [75 yrs	Inflation Rate	3.10	%	Net Return Rate	8.43 %	
Recapitizalition Name	Trust @ 8.43%				-		

Α.	В	С	D	E	F	G
Description of Item	Unit Cost Per Item	Quantity	Total Item Cost	Life Cycle	Number of Periods	Total PV
Limestone (Limestone Bed)	9,504	1	9,504	25	3	3,677
2. 6" PVC pipe & fittings	881	1	881	25	3	341
3. 6" Valterra Valve (flush pond)	200	1	200	15	5	173
4. Limestone stir & clean (352 T = 276.5cy)	35	277	9,695	7	10	22,242
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	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

20,280 \$ PV Grand Total

26,432

Company Name Forcey Coal, Inc. Project DeLarme D7

Site Name Forcey Delarme D7

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

AMD TREAT RECAPITIZALITION COST



AMDTREAT

	Return Rate	8.43 %				RMDTR	
Year	Trust Fund	Trust Fund	Payout	Year	Trust Fund	Trust Fund	Payout
	Growth	Growth	Schedule	l ou	Growth	Growth	Schedule
	Fund Before Payout	Fund After Payout			Fund Before Payout	Fund After Payout	
	26,432	26,432	Initial Fund Amount	178			
1	28,660	28,660	0	51	94,107	94,107	0
2	31,076	31,076	0	52	102,041	102,041	0
3	33,696	33,696	0	53	110,643	110,643	0
4	36,536	36,536	0	54	119,970	119,970	0
5	39,616	39,616	0	55	130,084	130,084	0
6	42,956	42,956	0	56	141,050	87,466	53,583
7	46,577	34,572	12,004	57	94,839	94,839	0
8	37,487	37,487	0	58	102,834	102,834	
	40,647	40,647	0	59	111,503	111,503	0
9				Edward I and		119,654	1,248
10	44,074	44,074	0	60	120,903		
11	47,789	47,789	0	61	129,741	129,741	0
12	51,818	51,818	0	62	140,678	140,678	0
13	56,186	56,186	0	63	152,538	86,187	66,350
14	60,923	46,057	14,865	64	93,453	93,453	0
15	49,940	49,624	316	65	101,331	101,331	0
16	53,807	53,807	0	66	109,873	109,873	0
17	58,343	58,343	0	67	119,135	119,135	0
18	63,262	63,262	0	68	129,179	129,179	0
19	68,595	- 68,595	0	69	140,068	140,068	0
20	74,377	74,377	0	70	151,876	69,717	82,158
21	80,647	62,241	18,406	71	75,594	75,594	~ O
22	67,487	67,487	0	72	81,967	81,967	0
23	73,177	73,177	0	73	88,877	88,877	0
24	79,346	79,346	0	74	96,369	96,369	0
25	86,034	63,757	22,277	75	104,493	0	104,493
26	69,131	69,131	0	76	0	0	0
27	74,959	74,959	0	77	0	0	0
28	81,278	58,486	22,792	78	0	0	0
29	63,416	63,416	0	79	0	0	0
30	68,762	68,262	499	80	0	0	0
31	74,017	74,017	0	81	0	0	0
32	80,257	80,257	0	82	0	0	0
33	87,022	87,022	0	83	0	0	0
_			0	Service and a service of	0	0	0
34	94,358	94,358		84	0	0	0
35	102,313	74,090	28,222	85		0	0
36	80,336	80,336	0	86	0		
37	87,108	87,108	0	87	0	0	0
38	94,451	94,451	0	88	0	0	0
39	102,414	102,414	0	89	0	0	0
40	111,047	111,047	0	90	0	0	. 0
41	120,408	120,408	0	91	0	0	0
42	130,559	95,612	34,947	92	0	0	0
43	103,672	103,672	0	93	0	0	0
44	112,411	112,411	0	94	0	0	0
45	121,888	121,098	790	95	0	0	0
46	131,306	131,306	0	96	0	0	0_
47	142,375	142,375	0	97	0	0	0
48	154,378	154,378	0	98	. 0	0	0
49	167,392	124,118	43,273	99	0	0	0
50	134,581	86,791	47,790	100	₩ 0	0	0

EXHIBIT D-6

TREATMENT BOND/TRUST CALCULATOR

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

Prepared For: Forcey - DeLarme

Treatment System(s) ID: D7

Date (mm/dd/yy): 5/9/2023

Inflation Rate:	3.1%
Yrs to Treat start:	0
Annual Treatment Cost:	\$2,639.00
Trust Fees:	1.50%
Bond (not needed for rec):	\$0.00
I	

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: 1 years

Options option #1	O&M only	Total with Recap	Total with Recap & Insurance	
conventional bond: bond adjustment:	\$96,541.81 \$96,541.81	\$152,655.65 \$152,655.65	\$159,161.17 \$159,161.17	bond in year
option #2 fully funded trust:	\$60,495.39	\$86,927.39	\$88,920.08	trust in year 1

PV of Recap (todays \$\$) @	8.43%	Eff RoR &	3.1% Inf:	\$26,432.00 for trust in year 1			
PV of Recap (todays \$\$) @	6.00%	Eff RoR &	3.1% Inf:	\$48,170.00 for bond in year 1	\$56,113.84	for bond in year 2	

Liability Insurance Factor @	\$1.00 per year, per \$1000 in the total PV of the Trust:	\$86.93 per year	PV Insurance:	\$1,992.69
Liability Insurance Factor @	\$1.00 per year, per \$1000 in total Bond:	\$152.66 per year	PV Insurance:	\$5,584.56

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 E-1

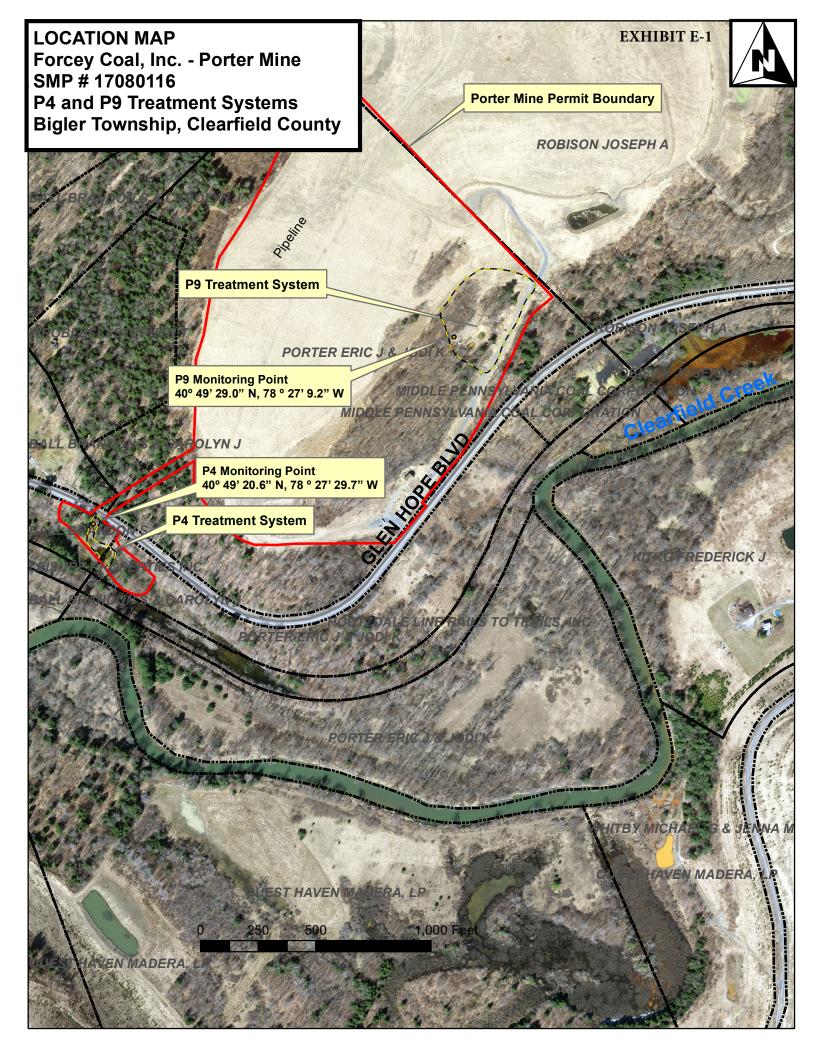


EXHIBIT E-2

24.02

20.57

5.90

2.90

1702.00

1278.00

MP P-4

Concentrations and Loads Report for 17080116/MP P4 Forcey Porter Mine

Max

Median

33.5

10.8

Sample Results, Concentrations in mg/L

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (mg/L)	Alk (mg/L)	Fe (mg/L)	Hot Acidity (mg/L)	Mn (mg/L)	рН	SO4 (mg/L)
P4	4456	508	5/10/2016	16.7	31.82	0.00	66.24	478.80	9.04	2.80	1230.00
P4	4456	522	8/8/2016	7.5	36.46	0.00	88.16	563.40	10.22	2.70	1067.00
P4	4456	637	9/8/2017	7.3	34.07	0.00	61.60	500.60	13.48	2.80	1611.00
P4	4456	674	8/5/2018	26.3	23.53	0.00	13.75	276.00	17.70	2.90	1022.80
P4	4456	690	3/7/2019	12.8	13.64	0.00	9.78	48.00	10.20	3.70	545.00
P4	4456	723	4/16/2019	10.8	23.81	0.00	14.15	273.40	20.16	3.00	1278.00
P4	4456	743	7/26/2019	10.8	19.34	0.00	12.74	254.40	19.20	2.90	1284.00
P4	4456	757	9/18/2019	10.8	25.11	0.00	27.26	316.20	21.00	3.00	1183.00
P4	4456	773	10/17/2019	10.8	27.55	0.00	36.04	412.80	21.09	3.20	1515.00
P4	4456	781	11/19/2019	10.8	33.48	0.00	53.72	474.60	21.44	3.20	1316.00
P4	4456	793	12/16/2019	12.8	33.75	0.00	45.34	445.40	22.66	3.30	1276.00
P4	4456	820	2/27/2020	33.5	26.09	0.00	16.39	284.60	22.18	5.90	1426.00
P4	4456	833	8/25/2020	7.3	22.80	0.00	29.90	337.80	20.10	2.90	1171.00
P4	4456	842	10/20/2020	7.3	32.25	0.00	50.74	452.20	20.98	2.80	1198.00
P4	4456	855	11/19/2020	7.3	35.02	0.00	60.93	507.40	20.57	2.80	1294.00
P4	4456	892	3/23/2021	10.8	31.82	0.00	27.73	345.00	24.02	2.90	1501.00
P4	4456	908	4/22/2021	10.8	27.94	0.00	24.87	328.80	22.17	2.90	1702.00
P4	4156	895	12/22/2021	5	29.99	0.00	38.38	375.80	21.47	2.90	1373.00
P4	7161	384	4/29/2022	15	19.45	0.00	11.08	236.60	16.23	2.90	1193.00
						Concentration	n Informatio	on			
			Average	12.34	27.78	0.00	36.25	363.78	18.63	3.13	1272.94

0.00

0.00

88.16

29.90

563.40

345.00

Loadings (lb/day)

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (lb/day)	Alk (lb/day)	Fe (lb/day)	Hot Acidity (lb/day)	Mn (lb/day)	SO4 (lb/day)
P4	4456	508	5/10/2016	16.7	6.39	0.00	13.29	96.10	1.82	246.86
P4	4456	522	8/8/2016	7.5	3.29	0.00	7.95	50.78	0.92	96.18
P4	4456	637	9/8/2017	7.3	2.99	0.00	5.40	43.92	1.18	141.34
P4	4456	674	8/5/2018	26.3	7.44	0.00	4.34	87.24	5.59	323.28
P4	4456	690	3/7/2019	12.8	2.10	0.00	1.50	7.38	1.57	83.84
P4	4456	723	4/16/2019	10.8	3.09	0.00	1.84	35.49	2.62	165.88
P4	4456	743	7/26/2019	10.8	2.51	0.00	1.65	33.02	2.49	166.66
P4	4456	757	9/18/2019	10.8	3.26	0.00	3.54	41.04	2.73	153.55
P4	4456	773	10/17/2019	10.8	3.58	0.00	4.68	53.58	2.74	196.64
P4	4456	781	11/19/2019	10.8	4.35	0.00	6.97	61.60	2.78	170.81
P4	4456	793	12/16/2019	12.8	5.19	0.00	6.97	68.52	3.49	196.29
P4	4456	820	2/27/2020	33.5	10.50	0.00	6.60	114.58	8.93	574.12
P4	4456	833	8/25/2020	7.3	2.00	0.00	2.62	29.64	1.76	102.73
P4	4456	842	10/20/2020	7.3	2.83	0.00	4.45	39.67	1.84	105.10
P4	4456	855	11/19/2020	7.3	3.07	0.00	5.35	44.52	1.80	113.53
P4	4456	892	3/23/2021	10.8	4.13	0.00	3.60	44.78	3.12	194.82
P4	4456	908	4/22/2021	10.8	3.63	0.00	3.23	42.68	2.88	220.91
P4	4156	895	12/22/2021	5	1.80	0.00	2.31	22.58	1.29	82.50
P4	7161	384	4/29/2022	15	3.51	0.00	2.00	42.65	2.93	215.06

36.46

27.94

		Load Inform	ation			
Average (lb/day)	3.98	0.00	4.65	50.51	2.76	186.85
Max (lb/day)	10.50	0.00	13.29	114.58	8.93	574.12
Median (lb/day)	3.29	0.00	4.34	43.92	2.62	166.66

EXHIBIT E-3



PLAN
scale: 1 inch = 50 feet

AS-BUILT TREATMENT SYSTEM
P4 SUBCHAPTER F MONITORING POINT

PORTER MINE

FORCEY COAL, INC.

BITUMINOUS SURFACE MINE OPERATION SMP NO. 17080116

SITUATE
BIGLER TOWNSHIP, CLEARFIELD COUNTY, PA



TODD M. COLEMAN

EXHIBIT E-4

CLEARFIELD COUNTY RECORDER OF DEEDS

Maurene E. Inlow, Recorder Cynthia R. Coudriet - Chief Deputy P.O. Box 361

1 North Second Street, Suite 103 Clearfield, Pennsylvania 16830

*RETURN DOCUMENT TO:

FORCEY COAL INC **475 BANION ROAD**

MADERA, PA 16661

RECEIVED

APR 1 0 2017

DEP Moshannon DMO

Instrument Number - 201703057

Recorded On 3/17/2017 At 10:21:49 AM

Instrument Type - AGREEMENT

* Total Pages - 5

Invoice Number - 319582

- * Mortgagor PORTER, ERIC J
- * Mortgagee FORCEY COAL INC
- * Customer FORCEY COAL INC

* FEES

STATE WRIT TAX \$0.50 \$15.00 RECORDING FEES -RECORDER RECORDER IMPROVEMENT \$3.00 FUND COUNTY IMPROVEMENT FUND \$2.00 TOTAL PAID \$20.50

I hereby CERTIFY that this document is recorded in the Recorder's Office of Clearfield County, Pennsylvania.



THIS IS A CERTIFICATION PAGE

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Information denoted by an asterisk may change during the verification process and may not be reflected on this page.

5600-FM-BMP0470 12/2013 pennsylvania DEPARTMENT OF ENVIRONMENTAL

Agreement.

Property;

by law and the mining permit;

COMMONWEALTH OF PENNSYLVANIA RECEPHENMENT OF ENVIRONMENTAL PROTECTION BUREAU OF MINING PROGRAM

APR 1 0 2017

1708011	16
Permit	No.

DEP Moshannon DMO

CONSENT TO RIGHT OF ENTRY FOR OPERATION AND MAINTENANCE OF A MINE DRAINAGE TREATMENT FACILITY COVERED BY A BOND OR A POST-MINING DISCHARGE TREATMENT TRUST AGREEMENT

Property Owner(s): List everyone with an ownership interest in the property which is the subject of this

Name: Eric J. Porter	Name: _Jodi K. Porter
Address: 2499 Flegal Road, Clearfield, PA 16830	Address: _2499 Flegal Road, Clearfield, PA 16830
WHEREAS, the Property Owner(s) own sur Bigler Pennsylvania, and described in Deed Book Volume 2002 Recorder's Office (the Property);	rface property containing <u>117.3</u> acres located in Township, <u>Clearfield</u> County, 211469, Page , in the <u>Clearfield</u> County
authorized to administer and enforce the Su 52 P.S. §§ 1396.1-1396.19a, the Clean Streams Law,	ania, Department of Environmental Protection (DEP) is rface Mining Conservation and Reclamation Act, 35 P.S. §§ 691.1-691.1001, and their implementing on and maintenance of facilities designed to remediate the
WHEREAS, <u>Forcey Coal, Inc.</u> ("Operate the Property pursuant to Surface Mining Permit No. <u>170</u>	tor") conducted surface mining activities on or adjacent to 80116;
	nage caused by <i>Operator's</i> mining activities is discharging inage on the Property is causing pollution, or a danger of
	ng law and its surface mining permit, to construct, operate rtion of the Property (the Treatment Facility Property), for
WHEREAS, a map showing the boundaries of the	Treatment Facility Property is attached as Exhibit A;
nstitution as an alternative financial assurance mecha	ne Department, or has established a trust with a financial anism, in order to provide sufficient funds to guarantee mine drainage treatment facilities on the Property and the

WHEREAS, Operator and DEP have requested and the Property Owner(s) is willing to grant Operator and DEP [and Trustee] a right of entry into, under, over and upon the Treatment Facility Property to construct, operate and maintain mine drainage treatment facilities;

Operator's obligation for long-term treatment, or abatement, of the post-mining pollutional discharge(s) on the

access to the Treatment Facility Property to conduct and/or oversee the mine drainage treatment activities required

WHEREAS, to assure compliance with its legal obligations, Operator and DEP [and the Trustee] must have

WHEREAS, the Property Owner(s) acknowledge that treatment of the mine drainage on the Property will provide benefits to the Property Owner and to the Commonwealth through abatement of a nuisance, restoration of land affected by mining operations, and prevention of pollution to waters of the Commonwealth;

For [Operator]

Eric J. Rorter

Name:

NOW THEREFORE, in consideration of the benefits which the Property Owner(s) and the general public will receive, and with the intention of being legally bound, it is agreed as follows:

- 1. Right of Entry. The Property Owner(s) hereby grants and conveys to *Operator* and DEP [and Trustee], its employees, agents, servants, contractors and subcontractors, a right of entry into, under, over and upon the Treatment Facility Property. This right of entry includes all necessary rights of ingress, egress and regress with all personnel, materials, and equipment needed to perform the discharge treatment activities.
- 2. <u>Duration of Right of Entry.</u> The term of this Right of Entry shall extend for the length of time necessary to complete the discharge treatment activities in accordance with applicable law. It is specifically understood and agreed that the term of this Right of Entry extends for the length of time necessary to operate and maintain all mine drainage treatment facilities on the Treatment Facility Property, and shall only terminate when such treatment facilities are no longer necessary to remediate or prevent pollution to waters of the Commonwealth.
- 3. <u>Insurance</u>. DEP will require *Operator* to obtain and keep in force insurance coverage in accordance with the requirements of 25 Pa. Code § 86.168.
- 4. <u>Property Use</u>. During the term of this Right of Entry, the Property Owner(s) will not, without the written consent of DEP, make any use of the Property which will interfere with the construction, operation or maintenance of the mine drainage treatment facilities installed on the Treatment Facility Property.
- 5. Notification. This Consent to Right of Entry shall be recorded by Operator in the Clearfield County Recorder's Office within thirty days of its execution. In the event that the Property Owner(s) intends to sell, lease, or otherwise transfer any interest in the Property prior to the termination of this Right of Entry, the Property Owners shall advise the prospective owner or lessee of the terms and conditions of this Right of Entry. The Property Owner(s) shall advise DEP, by notifying the Department representative whose signature appears below or his successor, of the intent to sell the Property prior to any sale.
- 6. <u>Representation of Interests</u>. The Property Owners represent that they are the only persons authorized to grant access to the Treatment Facility Property.
- 7. <u>Binding on Successors.</u> All the covenants, representations, consents, waivers and agreements contained herein shall be binding upon and inure to the benefit of the parties and their heirs, successors and assigns.

Name: David D. Forcey Title: President	Sym W. Faury Withess
For the Department of Environmental Protection: Mulcle Smuts Name Michael w Smith Title: District Mining Manager	Brenda fue Jexon Witness
IN WITNESS WHEREOF, each of the parties of administrators, successors and assigns, intending to be The Property Owner(s) (Each owner sign and print their name under the signature.) RECEIVED APR 1 0 2017	set its respective hand and seal, for itself, its heirs, executors, day of way, 20 17. RECEIVED APR 1 0 2017 DEP Moshannon DMO

DEP Moshannon DMO

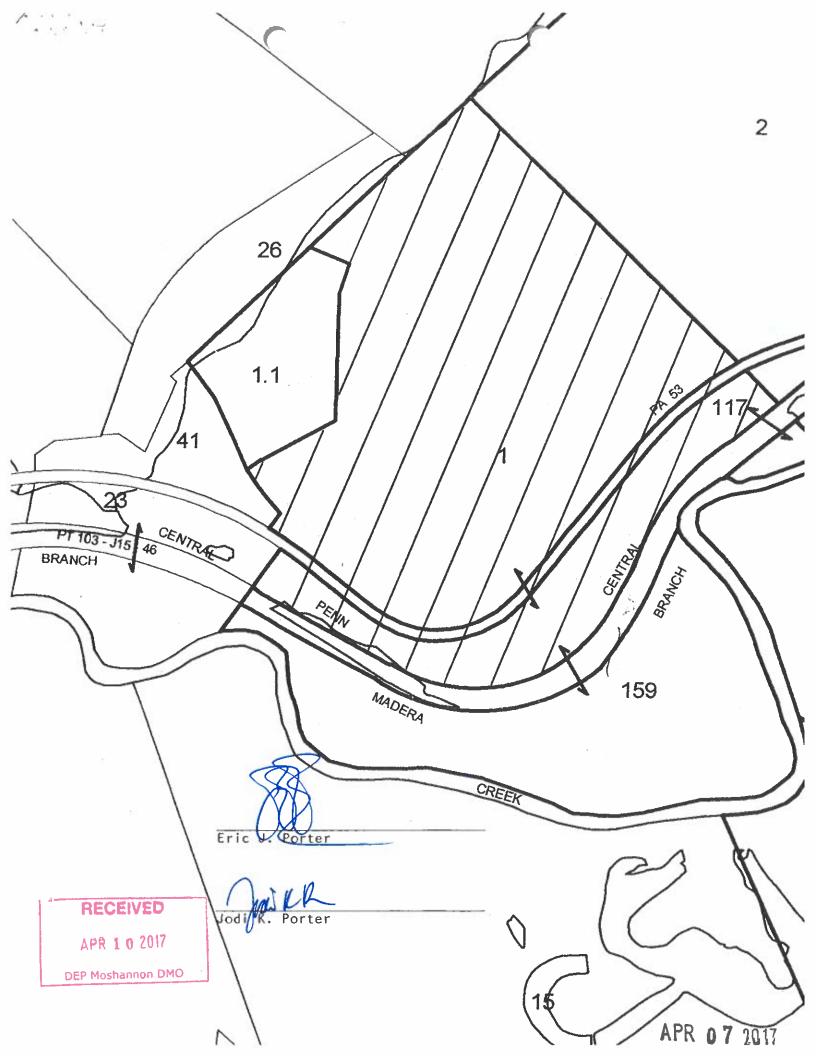
Name: Jodi K. Porter

ACKNOWLEDGEMENT

STATE OF Permsylvania COUNTY OF Clearfield			
OC : 1 0 D	SS	3	
COUNTY OF Clearfield	:		
On this, the 8th day of Mone	L , 20 <u>17</u>	, before me, the undersigned	d Notary, personally appeared
	Eric J. Porte	er and Jodi K. Porter	
		Name (s))	
known to me (or satisfactorily proven) to acknowledged that (he, she or they) have expensed in WITNESS WHEREOF, I have here	ereunder set my	e and desire it to be recorded.	
(SEAL) CONSTAURO Le Sun Notary Public	th_	My Commission Expires:	NOTARIAL SEAL CONSTANCE L. SMITH, Notary Public Bigler Township, Clearfield Co., PA My Commission Expires, October 24, 201
To the second se	ACKNOV	VLEDGEMENT	
STATE OF BUNGALORIES	g.		
STATE OF Bursylvania COUNTY OF Clearfield	ss		
On this, the $8^{+\alpha}$ day of $Maxe$:h , 20 <u>17</u>	_, before me, the undersigned	Notary, personally appeared
		d D. Forcey	(3)
24	(N	lame (s))	
known to me (or satisfactorily proven) to acknowledged that (he, she or they) have exemple the second of the secon	ecuted the same	and desire it to be recorded.	NOTARIAL SEAL CONSTANCE L. SMITH, Notary Public
Notary Public RECEI	VED	::	Bigler Township, Clearfield Co., PA My Commission Expires, October 24, 2017
Manager			

APR 1 0 2017

DEP Moshannon DMO



CLEARFIELD COUNTY RECORDER OF DEEDS

Maurene E. Inlow, Recorder Cynthia R. Coudriet - Chief Deputy P.O. Box 361

1 North Second Street, Suite 103 Clearfield, Pennsylvania 16830

*RETURN DOCUMENT TO:

Instrument Number - 201703056 FORCEY COAL INC
Recorded On 3/17/2017 At 10:21:48 AM
* Instrument Type - AGREEMENT MADERA, PA 16661

* Total Pages - 5 Invoice Number - 319582

* Mortgagor - BALL, BRANDON S

* Mortgagee - FORCEY COAL INC

* Customer - FORCEY COAL INC

*	FEES	
	STATE WRIT TAX	\$0.50
	RECORDING FEES -	\$15.00
	RECORDER	
	RECORDER IMPROVEMENT	\$3.00
	FUND	
	COUNTY IMPROVEMENT FUND	\$2.00
	TOTAL PAID	\$20.50

RECEIVED

MAY 1 0 2023

DEP Moshannon DMO

I hereby CERTIFY that this document is recorded in the Recorder's Office of Clearfield County, Pennsylvania.



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* . Information denoted by an asterisk may change during the verification process and may not be reflected on this page.



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF MINING PROGRAM

52	17080116	
	Permit No.	

CONSENT TO RIGHT OF ENTRY FOR OPERATION AND MAINTENANCE OF A MINE DRAINAGE TREATMENT FACILITY COVERED BY A BOND OR A POST-MINING DISCHARGE TREATMENT TRUST AGREEMENT

Property Owner(s): List everyone with an ownershi	p interest in the property which is th	RECEIVED e subject of this
Agreement.		MAY 1 0 2023
Name: Brandon S. Ball	Name:	
Address: 1505 Main Street, Madera, PA 16661	Address:	DEP Moshannon DM
WHEREAS, the Property Owner(s) own surfa	Taurakia Classiald	County
Pennsylvania, and described in Deed Book Volume 200216 Recorder's Office (the Property);	3824-2 , Page, in the <u>Clearfield</u>	County
WHEREAS, the Commonwealth of Pennsylvani authorized to administer and enforce the Surfa 52 P.S. §§ 1396.1-1396.19a, the Clean Streams Law, regulations, including requiring the construction, operation effects of mine drainage;	ace Mining Conservation and R 35 P.S. §§ 691.1-691.1001, and th	eclamation Act, eir implementing
WHEREAS, <u>Forcey Coal, Inc.</u> ("Operator the Property pursuant to Surface Mining Permit No. <u>17080</u>	r") conducted surface mining activities 3116;	on or adjacent to
WHEREAS, DEP has determined that mine drains from or passing through the Property, and the mine drain pollution, to waters of the Commonwealth;	age caused by <i>Operator's</i> mining activit age on the Property is causing pollution	ies is discharging in, or a danger of
WHEREAS, Operator is required, under the mining and maintain mine drainage treatment facilities on a portipurposes of treating the pollutional discharge(s);	g law and its surface mining permit, to do ion of the Property (the Treatment Fac	construct, operate cility Property), for
WHEREAS, a map showing the boundaries of the 1	Freatment Facility Property is attached a	s Exhibit A;
WHEREAS, Operator has posted a bond with the institution as an alternative financial assurance mechan Operator's legal obligation to operate and maintain the moperator's obligation for long-term treatment, or abatem Property.	nism, in order to provide sufficient fui ine drainage treatment facilities on the	nds to guarantee Property and the

access to the Treatment Facility Property to conduct and/or oversee the mine drainage treatment activities required by law and the mining permit;

WHEREAS, Operator and DEP have requested and the Property Owner(s) is willing to grant Operator and

WHEREAS, to assure compliance with its legal obligations, Operator and DEP [and the Trustee] must have

WHEREAS, Operator and DEP have requested and the Property Owner(s) is willing to grant Operator and DEP [and Trustee] a right of entry into, under, over and upon the Treatment Facility Property to construct, operate and maintain mine drainage treatment facilities;

WHEREAS, the Property Owner(s) acknowledge that treatment of the mine drainage on the Property will provide benefits to the Property Owner and to the Commonwealth through abatement of a nuisance; restoration of land affected by mining operations, and prevention of pollution to waters of the Commonwealth;

5600-FM-BMP0470 12/2013

NOW THEREFORE, in consideration of the benefits which the Property Owner(s) and the general public will receive, and with the intention of being legally bound, it is agreed as follows:

- 1. Right of Entry. The Property Owner(s) hereby grants and conveys to *Operator* and DEP [and Trustee], its employees, agents, servants, contractors and subcontractors, a right of entry into, under, over and upon the Treatment Facility Property. This right of entry includes all necessary rights of ingress, egress and regress with all personnel, materials, and equipment needed to perform the discharge treatment activities.
- 2. <u>Duration of Right of Entry.</u> The term of this Right of Entry shall extend for the length of time necessary to complete the discharge treatment activities in accordance with applicable law. It is specifically understood and agreed that the term of this Right of Entry extends for the length of time necessary to operate and maintain all mine drainage treatment facilities on the Treatment Facility Property, and shall only terminate when such treatment facilities are no longer necessary to remediate or prevent pollution to waters of the Commonwealth.
- 3. <u>Insurance</u>. DEP will require *Operator* to obtain and keep in force insurance coverage in accordance with the requirements of 25 Pa. Code § 86.168.
- 4. <u>Property Use.</u> During the term of this Right of Entry, the Property Owner(s) will not, without the written consent of DEP, make any use of the Property which will interfere with the construction, operation or maintenance of the mine drainage treatment facilities installed on the Treatment Facility Property.
- 6. Representation of Interests. The Property Owners represent that they are the only persons authorized to grant access to the Treatment Facility Property.
- 7. <u>Binding on Successors.</u> All the covenants, representations, consents, waivers and agreements contained herein shall be binding upon and inure to the benefit of the parties and their heirs, successors and assigns.

Contained herein shall be billeting upon and mare to the	bollone of the parties		o, daddoodo, o ania abbigitis.
For [Operator]			2
David D. horall	Sun N.	Tours	
Name: David D. Forcey	Witness		
Title: President			7- 1
For the Department of Environmental Protection:			
Mululle Somt	Bunda	fue D	exac
Name: Michael W. Smith Title: District Mining Managel	Vitness		
IN WITNESS WHEREOF, each of the parties administrators, successors and assigns, intending to be	set its respective har e legally bound, this	nd and seal, fo	r itself, its heirs, executors, f Whynch, 20 17.
The Property Owner(s) (Each owner sign and print			
their name under the signature.)			RECEIVED
brand hall		ŤE	MAY 1 0 2023
Name: Brandon S. Ball	Name:		0 3
			DEP

Moshannon DMO

ACKNOWLEDGEMENT

\wedge	7.010		18 O	
STATE OF DUNSYPRANE COUNTY OF Clearfield				
TATE OF PUNSHIVANK	ン:			
Mac to 01	; ss			
OUNTY OF CHECKE	;			
V				
On this, the 1644 day of 17	land our h	efore me, the undersigned	Motory nomonally and	:: poored
On this, the <u>lw y day</u> of <u>y day</u>	(WICK), 2017, 0	ine undersigned	ivolary, personally app	leared
	25.00		5.90	
	Brandon	S. Ball	1	
	(Name			
nown to me (or satisfactorily prove	n) to be the person(s) w	hose name(s) is/are sub-	scribed to this instrum	nent, and who
cknowledged that (he, she or they) ha	ave executed the same and	desire it to be recorded.		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
INVANTAIESS WHEDEOF I S	ave hereunder set my hand	and official seal		
THE O			MOTADIAL	OFFI
EALY MACRICE JUN		My Commission Expires: _	NOTARIAL CONSTANCE L. SMI	. SEAL.
Notary Pub	lic		I MAIRI TOWNSDID, CIA	Ad an blaines
			My Commission Expires	, October 24, 20
(11842) (1)		8.5		
JUN STOR	ACKNOWLE	EDGEMENT		
Milmond				
(-	339		
TATE OF Bunsylvanie OUNTY OF Clearfield	<i>⊋</i> √ :	23		
OUNTY OF Alacasteld	' : SS			
COUNTY OF CLEAR OF				
V				
On this, the 16th day of 1	March 2017 .t	efore me, the undersigned	Notary, personally app	peared
011 (110, 110 <u></u>	<u> </u>	•	T.	
		10		
38	10		\(\frac{1}{2}\)	
	David D.		<u> </u>	
	(Nam	e (s))		
		*	1	
nown to me (or satisfactorily prove	en) to be the person(s) w	/hose name(s) is/are sub	scribed to this instrur	ment, and wh
knowledged that (he, she or they) ha	ave executed the same and	desire it to be recorded.		
IN WITNESS WHEREOF, I h	ave hereunder set my hanr	l and official seal	W 3	
IN WITNESS WHEREOF, TH	Ave nereunder set my name	alu ollogi scal.	NOTARI	AL SEAL
SEALY ONS EQUES IN		My Commission Expires:	CONSTANCE L. SM	
Notary Pub	lic	W/77	Bigler Township,	
を表現している。 では、 では、 では、 できまる。			My Commission Expir	es, October 24, 7
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			T State to Floor F V Inc.	
			MAY 1 0 20	123

DEP Moshannon DMO

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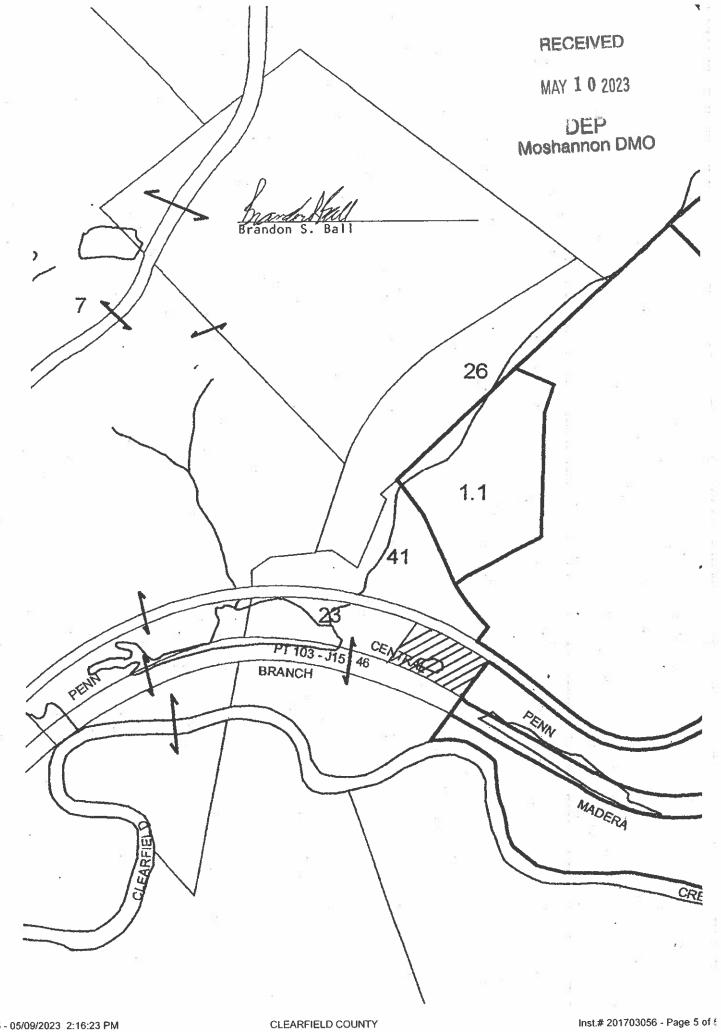


EXHIBIT E-5

Printed on 05/10/2023

Company Name Forcey Coal, Inc.

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT

AMD TREAT MAIN COST FORM



37	r form	AMOTREAT	-
Γ	Water Quality		
	Design Flow	23,00	gpm
	Typical Flow	15.00	gpm
	Total Iron	40.50	mg/L
	Ferrous Iron	0.00	mg/L
	Aluminum	26.20	mg/L
	Manganese	15.00	mg/L
	рН	2.80	su
	Alkalinity	0.00	mg/L
	TIC	0.00	mg/L
	Calculate Net Acidity Center Hot Acidity manually		
	Acidity	360.98	mg/L
l	Sulfate	1078.00	mg/L
۱	Chloride	0.00	mg/L
	Calcium	0.00	mg/L
	Magnesium	0.00	mg/L
-	Sodium	0.00	mg/L
	Water Temperature	20.00	С
	Specific Conductivity	0.00	uS/cm
	Total Dissolved Solids	0.00	mg/L
	Dissolved Oxygen	0.01	mg/L
	Typical Acid Loading	11.8	tons/yr
Ц	· · · · · ·		

Total Annual Cost: per 1000 Gal of H2O Treated \$0.242

Costs	AMD TREAT MAIN		
Passive Treatment	<u>A</u>	<u>s</u>	
Vertical Flow Pond			\$0
Anoxic Limestone Drain			\$0
Anaerobic Wetlands	1	0	\$1,773
Aerobic Wetlands			\$0
Manganese Removal Bed			\$0
Oxic Limestone Channel			\$0
Limestone Bed			\$0
BIO Reactor			\$0
Passive Subtotal:			\$1,773
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	1_	0	\$236
Roads			\$0
Land Access			\$0
Ditching	1	0	\$1,025
Engineering Cost	1	0	\$333
Ancillary Subtotal:			\$1,594
Other Cost (Capital Cost)			\$300
Total Capital Cost:			\$3,667
Annual Costs			
Sampling	1	0	\$1,189
Labor	1	0	\$227
Maintenance	1	0	\$500
Pumping			\$0
Chemical Cost			\$0
Oxidant Chem Cost			\$0
Sludge Removal			\$0
Other Cost (Annual Cost)			\$0
Land Access (Annual Cost)			\$0
Total Annual Cost:			\$1,916
Other Cost	1_	0	

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT ANAEROBIC WETLANDS



			IAMDIKE	:1-11	
Α	naerobic Wetlands Name P4 Wetland				
Opening Screen Water Parameters		METHODS Select One s 1. Iron Removal Rate	g/m2/day 2.	Mn Removal Rate	g/m2/day
Influent Water Parameters	Anaerobic Wetland Based on Dimensions	Top Length at Freeboard	66 ft 4, Top \	Width at Freeboard	43 ft
that Affect Anaerobic Wetlands Calculated Acidity	Length Width 5. Length to Width Ratio	Liner Cost		Anaerobic Cost 34. Organic Matter Cost	Summaries 636
Alkalinity 0.00 mg/L	Run of Slope 6. Slope of Wetland Sides 7. Freeboard Depth 1.00 ft	C Clay Liner 20. Clay Liner Unit Cost	\$/yd3	35. Limestone Cost 36. Excavation Cost 37. Liner Cost	896
	7. Freeboard Depth 1.00 ft 8. Free Standing Water Depth 1.50 ft 9. Organic Matter Thickness 0.50 ft	21. Thickness of Clay Liner Synthetic Liner	ft	38. Clear and Grub Cost 39. Wetland Planting Cost	0 3 241
	10. Organic Matter Unit Cost 15.00 \$/yd3 11. Organic Matter Spreading Cost 4.50 \$/yd3	22, Synthetic Liner Unit Cost Anaerobic Wetland Sizi	\$/yd2	40. Total Cost	1,773 \$
manually Net Acidity (Hot Acidity)	12. Limestone Depth 0.20 ft 13. Density of Loose Limestone 100 lbs/ft3	23. Length at Top of Freeboard 24. Width at Top of Freeboard	66.00 ft 43.00 ft		
360.98 mg/L Design Flow	14. Limestone Unit Cost 0.00 \$/ton 15. Excavation Unit Cost 5.50 \$/yd3	25. Freeboard Volume 26. Water Surface Area 27. Water Volume	97 yd3 2,418 ft2 118 yd3		
23.00 gpm Typical Flow 15.00 gpm	16. Wetland Planting Unit Cost 3700 \$/acre	28. Organic Matter Volume 29. Limestone Volume	32 yd3 12 yd3		
Total Iron 40.50 mg/L Aluminum	18a. Land Multiplier ratio 18b. Clear/Grub Acres acres	30. Tons of Limestone 31. Excavation Volume 32. Clear and Grub Area	16 tons 162 yd3 0.0 acres		
26.20 mg/L Manganese	19. Clear and Grub Unit Cost \$/acre	33. Liner Area	0 ft2	Record Number 1 o	

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT PONDS



Pond Name Sump Pond		
	Pond Design Based On:	23 Revegetation Cost 1500.00 \$/acre
	C Retention Time	24. Cost of Baffles 0 \$
	Desired Retention Time hours	
	2. Include Sludge Removal?	
Chaning Saraan	3. Sludge Removal Frequency times/year	Calculated Pond Dimensions per Pond
Opening Screen Water Parameters	4. Titration?	25. Length at Top of Freeboard 20 ft
	5. Sludge Rate gal sludge/	26. Width at Top of Freeboard 20 ft
Influent Water Parameters	5. Sludge Rate gal H2O gal H2O %	27. Freeboard Volume 24 yd3
that Affect	7.Sludge Density lbs./gal	28. Water Volume 12 yd3
Ponds		29. Estimated Annual Sludge 0 yd3/yr
Calculated Acidity 360,98 mg/L	Pond Size	30. Volume of Sludge 0 yd3/ removal
Alkalinity	8. Pond Length at Top of Freeboard 20.000 ft	31. Excavation Volume 0.00 acre ft
0.00 mg/L	9. Pond Width at Top of Freeboard 20.000 ft	32. Excavation Volume 12 yd3
	Run Rise	33. Clear and Grub Area 0.01 acres
Calculate Net	10. Slope Ratio of Pond Sides 2.0 : 1	34. Liner Area 88 yd2
Acidity (Acid-Alkalinity)	11. Freeboard Depth 1.0 ft	35. Calculated Retention Time 1 hours
Enter Net Acidity	12. Water Depth 2.7 ft	Ponds Sub-Totals per Pond
manually	13. Excavation Unit Cost 5.50 \$/yd3	36. Excavation Cost 152 \$
Net Acidity (Hot Acidity)	14. Total Length of Effluent	37. Pipe Cost 0 \$
0.00 mg/L	/ Influent Pipe0.00 **	38. Liner Cost 77 \$
	15. Unit Cost of Pipe 10.00 \$/ft	39. Clearing and Grubbing Cost 0 \$
Design Flow	C No Liner	40. Revegetation Cost 6 \$
23.00 gpm Typical Flow	Clay Liner	41. Baffle Cost 0 \$
15.00 gpm	16. Clay Liner Unit Cost 5.00 \$/yd3	
Total Iron	17. Thickness of Clay Liner 1.0 ft	42. Estimated Cost 236 \$
40.50 mg/L	C Synthetic Liner	
Aluminum	18. Synthetic Liner Unit Cost \$/yd2	43. Accept Minimum Pond Cost?
26.20 mg/L Manganese	☐ 19. Clearing and Grubbing?	The Recommended Minimum Construction Cost of Building a Pond is \$ 5,000
15.00 mg/L	20. Land Multiplier ratio	4. Recommended Minimum Cost \$
	O 21. Clear/Grub Acres acres	Tressministed minimum cost
Record Number 1 of 1	22. Clear and Grub Unit Cost \$/acre	45. Total Cost 236 \$
1011	J	

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT DITCHING



AMOTREAT

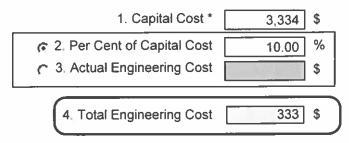
Ditching Name Rock lined channel to sump					
1. Ditch Length Rock 60 ft	13. Ditch Depth of Rock	1.50	ft		
2. Ditch Length Grass 0 ft	14. Cost of Ditch Surface Rock	20.00	\$/yd3		
3. Bottom Width of Ditch 2.0 ft	15. Cost to Place Rock	12.00	\$/yd3		
4. Ditch Depth 1.50 ft	16. Excavation Unit Cost	5.50	\$/yd3		
5. Geo Textile Unit Cost 3.00 \$/yd2	17. Length of Silt Fence	0.00	ft		
6. Length of Geo Textile 0 ft	18. Unit Cost of Silt Fence	1.15	\$/ft		
7. Slope Ratio of Run Rise	19. Revegetation Unit Cost 15	00.00	\$/acre		
Ditch Sides 2.00 : 1.00	Ditching Sub-Totals				
8. Surveying?	20. Excavation Cost	92	\$		
9. Survey Rate acres/day	21. Survey Cost	0	\$		
10. Survey Unit Cost \$/day	22. Clear and Grub Cost	0	\$		
☐ 11. Clearing and Grubbing?	23. Aggregate Cost	929	\$		
12. Clear and Grub Cost \$/acre	24. Filter Fabric Cost	0	\$		
<u> </u>	25. Silt Fence Cost	0	\$		
	26. Revegetation Cost	4	\$		
Record Number 1 of 1	27. Total Cost	1,025	\$		

Printed on 05/10/2023

Company Name <u>Forcey Coal, Inc.</u>
Project <u>P4 Treatment System</u>

Site Name Forcey Porter P4

AMD TREAT ENGINEERING COST



* Total Capital Cost minus Engineering and Land Access Capital Cost



Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT SAMPLING



Sampling Name 1 treated/mo, 1 raw/qtr

← Estimate Sampling Cost	
1. Unit Labor Cost	35.00 \$/hr
2. Collection Time per Sample	0.17 hours/sample
3. Travel Time	1.00 hr
4. Sample Frequency	1.33 samples/mo
5. Lab Cost Per Sample	33.50 \$/sample
6. Number of Sample Points	1 points
C Enter Established Annual Sa	ampling Cost
7. Actual Annual Sampling Cost	\$

Sampling Sub-Totals

535 \$ 8. Yearly Sample Analysis Cost

> 559 \$ 9. Yearly Travel Cost

95 \$ 10. Yearly Collection Cost

> 11. Sampling Cost 1,189 \$

Record Number 1 of 1

Labor Name P4

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT

LABOR



		<u>.</u>
ା ଜ Es	timate Labor Cost	
	1. Site Visits per Week	0.25
3 8	2. Site Labor Time per Visit	0.50 hours
	3. Travel Time per Visit	0.00 hours
	4. Unit Labor Cost	35.00 \$/hour
○ Ent	ter Established Annual Labor (Cost
	5. Actual Annual Labor Cost	\$

227 \$ 6. Total Cost

Record Number 1 of 1

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT

MAINTANENCE

%	1. Percent of Active Cost
%	2. Percent of Passive Cost
%	3. Percent of Ancillary Cost *
%	4. Percent of Other Capital Cost
nance Cost	© Enter Established Annual Mainte
500 \$	5. Annual Maintenance Cost
nance Sub-Totals	Mainter
0 6	O Total Maintenance Autilia Ocat
0 \$	6 Total Maintenance Active Cost
0 \$	7. Total Maintenance Passive Cost
0 \$	7. Total Maintenance Passive Cost
0 \$	7. Total Maintenance Passive Cost 8. Total Maintenance Ancillary Cost



^{*} Ancillary Cost does int include Cost for Land Access and Engineering Cost

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT OTHER COST



AMATREAT

Oher Cost Name P4				
A. Description of Item	B. Unit Cost Per Item	C. Quantity	D. Total Item Cost	E. Capital Cost Annual Cost
Wetland Outlet Pipe	200.00	1	200	Capital Cost Annual Cost
2. Weir	100.00	1	100	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 Capital 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

Curent Capital Cost	300 \$	
Current Annual Cost	0 \$,

Total Capital Cost	300 \$
Total Annual Cost	0 \$

EXHIBIT E-6

Project P4 Treatment System

Site Name Forcey Porter P4

AMD TREAT RECAPITIZALITION COST



Calculation Period 75 yrs Inflation Rate 3.10 % Net Return Rate 8.43 % Recapitizalition Name Trust Fund @8.43%

A.	В	С	D	E	F	G
Description of Item	Unit Cost Per Item	Quantity	Total Item Cost	Life Cycle	Number of Periods	Total PV
1. Weir	100	1	100	20	3	55
2. Wetland Outlet Pipe	200	1	200	30	2	54
3. Sludge Removal (vacuum truck to bh)	1,200	1	1,200	10	7	1,777
4.	0	0	0	0	0	0
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	<u></u> 0	0	0	0	0
11.	0	0	0	0	0	0
12	0	0	III 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 1,500 \$ PV Grand Total 1,886

Project P4 Treatment System

Site Name Forcey Porter P4

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

AMD TREAT RECAPITIZALITION COST



	Return Rate	8.43 %				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	
	1,886	1,886	Initial Fund Amount	134638	,	<u>-</u>		
1	2,044	2,044	0	51	6,706	6,706	0	
2	2,216	2,216	0	52	7,271	7,271	0	
3	2,403	2,403	0	53	7,884	7,884	0	
4	2,606	2,606	. 0	54	8,549	8,549	0	
5	2,826	2,826	0	55	9,270	9,270	0	
6	3,064	3,064	0	56	10,051	10,051	0	
7	3,322	3,322	0	57	10,898	10,898	0	
8	3,602	3,602	0	58	11,817	11,817	0	
9	3,906	3,906	0	59	12,813	12,813	0	
10	4,235	2,607	1,628	60	13,894	4,526	9,367	
11	2,827	2,827	0	61	4,908	4,908	0	
12	3,065	3,065	0	62	5,322	5,322	0	
13	3,324	3,324	0	63	5,770	5,770	0	
14	3,604	3,604	0	64	6,257	6,257	0	
15	3,908	3,908	0	65	6,784	6,784	0	
16	4,237	4,237	0	66	- 7,356	7,356	0	
17	4,594	4,594	0	67	7,977	7,977	0	
18	4,982	4,982	0	68	8,649	8,649	0	
19	5,402	5,402	0	69	9,378	9,378	0	
20	5,857	3,463	2,393	70	10,169	0	10,169	
21	3,755	3,755	0	71	0	0	0	
22	4,072	4,072	0	72	0	0	0	
23	4,415	4,415	0	73	0	0	0	
24	4,787	4,787	0	74	0	0	0	
25	5,191	5,191	0	75	0	0	0	
26	5,628	5,628	0	76	0	0	0	
27	6,103	6,103	0	77	0	0	0	
28	6,618	6,618	0	78	0	0	0	
29	7,175	7,175	0	79	0	0	0	
30	7,780	4,282	3,498	80	0	0	0	
31	4,643	4,643	0	81	0	0	0	
32	5,034	5,034	0	82	0	0	0	
33	5,459	5,459	0	83	0	0	0	
34	5,919	5,919	0	84	0	0	0	
35	6,418	6,418	0	85	0	0	0	
36	6,959	6,959	0	86	- 0	0	0	
37	7,546	7,546	0	87	0	0	0	
38	8,182	8,182	0	. 88	0	0	0	
39	8,872	8,872	0	89	0	0	0	
40	9,619	5,211	4,408	90	0	0	e (a)	
41	5,650	5,650	0	91	0	0	0	
42	6,127	6,127	0	92	0	0	0	
43	= 6,643	6,643	0	93	0	0	0	
44	7,203	7,203	0	94	0	0	0	
45	7,810	7,810	. 0	95	0	0	0	
46	8,469	8,469	0	96	0	0	0	
47	9,183	9,183	0	97	0	0	0	
48	9,957	9,957	0	98	0	0	0	
49	10,796	10,796	0	99	0	0	0	
50	11,707	6,184	5,522	100	0	0	0	

EXHIBIT E-7

TREATMENT BOND/TRUST CALCULATOR

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

Prepared For:

Forcey Coal, Inc. - Porter

Treatment System(s) ID:

P-4

Date (mm/dd/yy): 5/9/2023

Inflation Rate:		3.1%
Yrs to Treat start:		0
Annual Treatment Cost:		\$1,916.00
Trust Fees:		1.50%
Bond (not needed for rec):		\$0.00
Investment Ratios:		
	stock:	80%
	bond:	20%

stock: 80% bond: 20% 8.43% 1.16

6.00%

Rec Bond Rate of Return:

Effective Rate of Return:

Volatility Index:

Remaining Time on Permit: 1 years

O&M only	Total with Recap	Total with Recap <u>& Insurance</u>	
\$70,092.50	\$74,110.28	\$77,268.54	bond in year
\$70,092.50	\$74,110,28	\$77,268.54	2
\$43,921.62	\$45,807.62	\$46,857.70	trust in year 1
	\$70,092.50 \$70,092.50	O&M only with Recap \$70,092.50 \$74,110.28 \$70,092.50 \$74,110.28	O&M only Total with Recap with Recap & Insurance \$70,092.50 \$74,110.28 \$77,268.54 \$70,092.50 \$74,110.28 \$77,268.54

PV of Recap (todays \$\$) @	8.43%	Eff RoR &	3.1% Inf:	\$1,886.00 for trust in year 1			
PV of Recap (todays \$\$) @	6.00%	Eff RoR &	3.1% Inf:	\$3,449.00 for bond in year 1	\$4,017.78	for bond in year	2

Liability Insurance Factor @	\$1.00 per year, per \$1000 in the total PV of the Trust:	\$45.81 per year	PV Insurance:	\$1,050.08
Liability Insurance Factor @	\$1.00 per year, per \$1000 in total Bond:	\$74.11 per year	PV Insurance:	\$2,711.16

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 F-1

5.00

8.50

4.80

16.43

31.25

14.22

1081.64

1792.00

925.50

Concentrations and Loads Report for 17080116/MP P9 Forcey Porter Mine

MP P-9

Sample Results, Concentrations in mg/L

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (mg/L)	Alk (mg/L)	Fe (mg/L)	Hot Acidity (mg/L)	Mn (mg/L)	pН	SO4 (mg/L)
P9	4456	336	2/11/2015	1.2	5.22	0.00	0.02	72.60	4.32	4.20	270.40
P9	4456	417	8/12/2015	4.5	11.92	9.60	0.30	95.80	11.22	5.00	590.10
P9	4456	506	5/10/2016	3.8	13.89	8.80	0.30	89.60	9.77	4.40	1152.00
P9	4456	525	8/8/2016	1.2	20.85	12.40	0.30	138.00	17.63	4.50	1308.00
P9	4456	636	9/8/2017	2.5	15.06	12.20	0.30	116.00	26.51	8.50	1748.00
P9	4456	692	3/7/2019	2.7	4.28	9.20	0.30	35.60	10.15	4.80	764.60
P9	4456	725	4/16/2019	9.5	6.85	11.40	0.30	45.40	14.84	4.80	864.90
P9	4456	772	10/17/2019	0.25	14.48	13.20	0.30	156.00	27.63	5.00	1684.00
P9	4456	779	11/19/2019	1.5	15.59	12.60	0.30	142.20	28.64	4.80	1583.00
P9	4456	792	12/16/2019	1.8	7.26	9.20	0.30	65.00	14.04	5.20	881.10
P9	4456	819	2/27/2020	10.5	3.82	8.60	0.30	28.80	8.47	5.40	507.20
P9	4456	831	8/25/2020	1	14.50	10.60	0.30	117.80	29.80	4.50	1792.00
P9	4456	840	10/20/2020	0.75	16.59	10.80	0.30	125.60	31.25	4.60	1763.00
P9	4456	854	11/19/2020	1.5	12.61	11.40	0.30	81.80	22.32	4.60	1380.00
P9	4456	890	3/23/2021	3	6.86	9.80	0.30	47.20	14.39	4.80	893.50
P9	4156	855	8/30/2021	1	25.39	40.40	0.30	-8.60	1.69	6.30	546.40
P9	4156	897	12/22/2021	5	5.78	7.00	0.30	40.80	11.00	4.40	783.80
P9	7161	382	4/29/2022	4	6.60	4.60	0.30	53.80	12.07	4.20	957.50
	Concentration Information										

11.21

40.40

10.20

0.28

0.30

0.30

80.19

156.00

77.20

Loadings (lb/day)

MP ID	Collector ID	Seq#	Date Collected	Flow (gal/min)	Al (lb/day)	Alk (lb/day)	Fe (lb/day)	Hot Acidity (lb/day)	Mn (lb/day)	SO4 (lb/day)
P9	4456	336	2/11/2015	1.2	0.08	0.00	0.00	1.05	0.06	3.90
P9	4456	417	8/12/2015	4.5	0.64	0.52	0.02	5.18	0.61	31.91
P9	4456	506	5/10/2016	3.8	0.63	0.40	0.01	4.09	0.45	52.61
P9	4456	525	8/8/2016	1.2	0.30	0.18	0.00	1.99	0.25	18.86
P9	4456	636	9/8/2017	2.5	0.45	0.37	0.01	3.49	0.80	52.52
P9	4456	692	3/7/2019	2.7	0.14	0.30	0.01	1.16	0.33	24.81
P9	4456	725	4/16/2019	9.5	0.78	1.30	0.03	5.18	1.69	98.75
P9	4456	772	10/17/2019	0.25	0.04	0.04	0.00	0.47	0.08	5.06
P9	4456	779	11/19/2019	1.5	0.28	0.23	0.01	2.56	0.52	28.54
P9	4456	792	12/16/2019	1.8	0.16	0.20	0.01	1.41	0.30	19.06
P9	4456	819	2/27/2020	10.5	0.48	1.09	0.04	3.63	1.07	64.00
P9	4456	831	8/25/2020	1	0.17	0.13	0.00	1.42	0.36	21.54
P9	4456	840	10/20/2020	0.75	0.15	0.10	0.00	1.13	0.28	15.89
P9	4456	854	11/19/2020	1.5	0.23	0.21	0.01	1.47	0.40	24.88
P9	4456	890	3/23/2021	3	0.25	0.35	0.01	1.70	0.52	32.21
P9	4156	855	8/30/2021	1	0.31	0.49	0.00	-0.10	0.02	6.57
P9	4156	897	12/22/2021	5	0.35	0.42	0.02	2.45	0.66	47.10
P9	7161	382	4/29/2022	4	0.32	0.22	0.01	2.59	0.58	46.03

11.53

25.39

12.26

3.09

10.5

2.15

Average Max

Median

		Load Inform	ation			
Average (lb/day)	0.32	0.36	0.01	2.27	0.50	33.01
Max (lb/day)	0.78	1.30	0.04	5.18	1.69	98.75
Median (lb/day)	0.29	0.26	0.01	1.85	0.42	26.71

EXHIBIT F-2

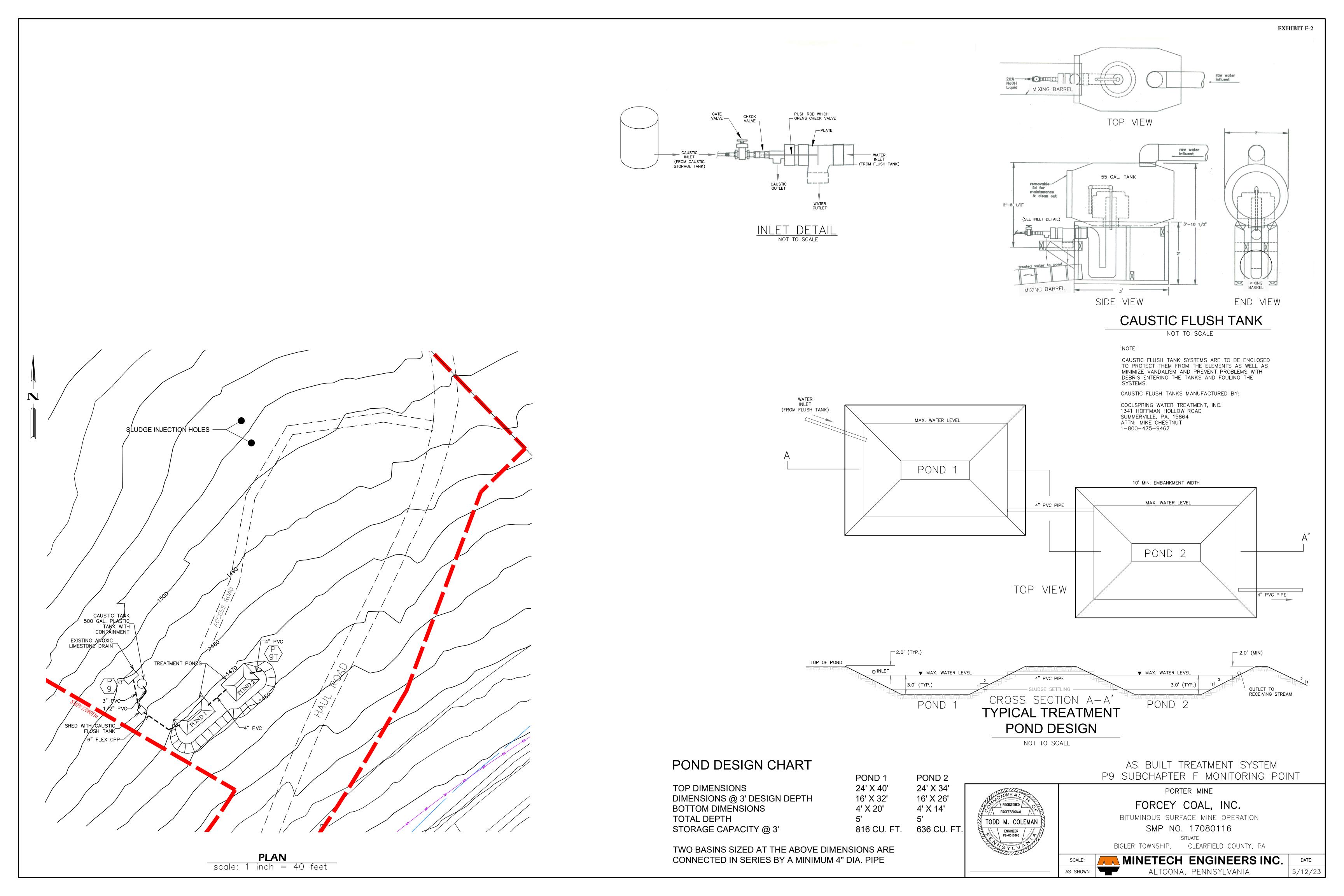


EXHIBIT F-3

Printed on 05/09/2023

Company Name Forcey Coal, Inc.

Project P9

Site Name Porter

AMD TREAT AMD TREAT MAIN COST FORM

9

AMOTREAT

\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
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790
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210
\$0
,780
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\$960
\$250
\$0
,450

101 4 0 114	HIND I IZELL	
Water Quality		
Design Flow	5.80	gpm
Typical Flow	2.80	gpm
Total Iron	0.05	mg/L
Ferrous Iron	0.00	mg/L
Aluminum	9.10	mg/L
Manganese	12.23	mg/L
рН	4.95	su
Alkalinity	8.17	mg/L
TIC	0.00	mg/L
Calculate Net Acidity		
© Enter Hot Acidity manually		
Acidity	57.33	mg/L
		gr _
Sulfate	1061.67	mg/L
Chloride	0.00	mg/L
Calcium	0.00	mg/L
Magnesium	0.00	mg/L
Sodium	0.00	mg/L
Water Temperature	11.17	С
Specific Conductivity	1702.00	uS/cm
Total Dissolved Solids	0.00	mg/L
Dissolved Oxygen	0.01	mg/L
Typical Acid Loading	0.4	tons/yr
> //		
3		<u>.</u> .

Total Annual Cost: per 1000 Gal of H2O Treated \$8.453

Project P9

Site Name Porter



AMD TREAT CAUSTIC SODA

Opening Scr Water Paran		Caustic Soda Name P9 Cau	istic Soda			
Influent Wat	er	1. Gallons of Caustic per Year	283.88	gal/yr	☐ 17. Automatic Sys	item?
Parameters that Affect		2. Gallons of Caustic per Month	23.65	gal/mo	18. PID pH Proportional Control	\$
Caustic Sod		3. Gallons of Caustic per Day	0.77	gal/day	19. pH Probe	s
Calculated Ac	_ ′	4, Titration?			20. Chemical Metering Pump	\$
65.38 Alkalinity	mg/L	5. Caustic Titration Volume		gal caustic/gal water treated	21. Water Whee	l Dispenser
8.17	mg/L	6. Purity of Caustic Solution	99.00	purity of 20%	22. Dispenser Cost	\$
	_	7. Mixing Efficiency of Caustic Solution	100.00	caustic solution	Caustic Sub-To	otals
Calculate Net Acidity		8. Tank Cost	1145	\$	23. Number of Tanks Required	1 nbr
(Acid-Alkalinit	" II	9. Tank Volume	500	gal	24. Tank Cost	1,145 \$
Enter Net Aci manually	dity	10. Delivery Frequency	1	times/yr	25. Automatic System or Wheel Dispenser Cost	0 \$
Net Acidity (Hot Acidity)		11. Valve Unit Cost	50.00	\$	26. Cost of Valves	100 \$
	mg/L	12, Number of Valves	2	nbr	27. Feeder Line Cost	7 \$
		13. Feeder Line Length	20	ft	28. Labor Cost	280 \$
Design Flow	gpm	14. Feeder Line Unit Cost	0.35	\$/ft		
Typical Flow	3,4	15. Installation of System Unit Cost	35.00	\$/hr	29. Total Capital Cost	1,532 \$
2.80 S	gpm	16. Installation Hours	8	hours		
	mg/L					
Aluminum					Record Number 1	of 1
9.10 I Manganese	mg/L					
12.23	mg/L					

Project P9

Site Name Porter

AMD TREAT PONDS



Pond Name P9 system Po	and 1	
	Pond Design Based On:	23. Revegetation Cost 1500.00 \$/acre
	C Retention Time	24. Cost of Baffles 0 \$
	Desired Retention Time hours	
	2. Include Sludge Removal?	
☐ Opening Screen	3. Sludge Removal Frequency times/year	Calculated Pond Dimensions per Pond
Water Parameters	4. Titration?	25. Length at Top of Freeboard 40 ft
	5. Sludge Rate gal sludge/	26. Width at Top of Freeboard 24 ft
Influent Water Parameters	6. Percent Solids %	27. Freeboard Volume 82 yd3
that Affect	7.Sludge Density lbs./gal	28. Water Volume35 yd3
Ponds		29. Estimated Annual Sludge 0 yd3/yr
Calculated Acidity 65.38 mg/L	Pond Size	30. Volume of Sludge 0 yd3/ removal
Alkalinity	8. Pond Length at Top of Freeboard 40.000 ft	31. Excavation Volume 0.02 acre ft
8.17 mg/L	9. Pond Width at Top of Freeboard 24.000 ft	32. Excavation Volume 35 yd3
,ú	Run Rise	33. Clear and Grub Area 0.03 acres
Calculate Net	10. Slope Ratio of Pond Sides 2.0	34. Liner Area 169 yd2
Acidity (Acid-Alkalinity)	11. Freeboard Depth 1.7 ft	35. Calculated Retention Time 20 hours
Enter Net Acidity	12. Water Depth 3.0 ft	Ponds Sub-Totals per Pond
manually	13. Excavation Unit Cost 5.50 \$/yd3	36. Excavation Cost 387 \$
Net Acidity (Hot Acidity)	14 Total Length of Effluent	37. Pipe Cost 650 \$
57.33 mg/L	/ Influent Pipe 65,00 II	38. Liner Cost 175 \$
	15. Unit Cost of Pipe 10.00 \$/ft Liner Cost	39. Clearing and Grubbing Cost 0 \$
Design Flow	C No Liner	40. Revegetation Cost 16 \$
5 80 gpm Typical Flow	© Clay Liner	41. Baffle Cost 0 \$
2.80 gpm	16. Clay Liner Unit Cost 5.00 \$/yd3	
Total Iron	17. Thickness of Clay Liner 1.0 ft	42. Estimated Cost 1,229 \$
0.05 mg/L	C Synthetic Liner	
Aluminum	18. Synthetic Liner Unit Cost \$/yd2	43. Accept Minimum Pond Cost?
9.10 mg/L Manganese	☐ 19. Clearing and Grubbing?	The Recommended Minimum Construction Cost of Building a Pond is \$ 5,000
12.23 mg/L	O 20. Land Multiplier ratio	4. Recommended Minimum Cost
- Constitution of	O 21. Clear/Grub Acres acres	
Record Number 1 of 2	22. Clear and Grub Unit Cost \$/acre	45. Total Cost 1,229 \$

Project <u>P9</u>

Site Name Porter

AMD TREAT PONDS



Pond Name P9 System Po	ond 2	
	Pond Design Based On:	23. Revegetation Cost 1500.00 \$/acre
	C Retention Time	24. Cost of Baffles 0 \$
	Desired Retention Time hours	
	2. Include Sludge Removal?	
Comming Server	3. Sludge Removal Frequency times/year	Calculated Pond Dimensions per Pond
Opening Screen Water Parameters	4. Titration?	25. Length at Top of Freeboard 34 ft
	5. Sludge Rate gal H2O	26. Width at Top of Freeboard 24 ft
Influent Water Parameters	6. Percent Solids %	27. Freeboard Volume 67 yd3
that Affect	7.Sludge Density lbs./gal	28. Water Volume 27 yd3
Ponds Coloulated Acidity		29. Estimated Annual Sludge 0 yd3/yr
Calculated Acidity 65.38 mg/L	Pond Size	30. Volume of Sludge 0 yd3/ removal
Alkalinity	8. Pond Length at Top of Freeboard 34.000 ft	31. Excavation Volume 0.01 acre ft
8.17 mg/L	9. Pond Width at Top of Freeboard 24.000 ft	32. Excavation Volume 27 yd3
	Run Rise	33. Clear and Grub Area 0.02 acres
Calculate Net	10. Slope Ratio of Pond Sides 2.0 : 1	34. Liner Area 150 yd2
Acidity (Acid-Alkalinity)	11. Freeboard Depth 1.7 ft	35. Calculated Retention Time16 hours
Enter Net Acidity	12. Water Depth 3.0 ft	Ponds Sub-Totals per Pond
manually	·	36 Excavation Cost 320 \$
Net Acidity (Hot Acidity)	13. Excavation Unit Cost 5.50 \$/yd3 14. Total Length of Effluent 6.500 \$	37, Pipe Cost 150 \$
57.33 mg/L	/ Influent Pipe 15.00 ft	38. Liner Cost 152 \$
37.30 mg. 2	15. Unit Cost of Pipe 10.00 \$/ft Liner Cost	39 Clearing and Grubbing Cost 0 \$
Design Flow	C No Liner	40. Revegetation Cost 14 \$
5.80 gpm Typical Flow	Clay Liner	41. Baffle Cost 0 \$
2.80 gpm	16. Clay Liner Unit Cost 5.00 \$/yd3	
Total Iron	17. Thickness of Clay Liner 1.0 ft	42. Estimated Cost 637 \$
0.05 mg/L	C Synthetic Liner	
Aluminum	18. Synthetic Liner Unit Cost \$/yd2	43. Accept Minimum Pond Cost?
9.10 mg/L Manganese	19. Clearing and Grubbing?	The Recommended Minimum Construction Cost of Building a Pond is \$ 5,000
12.23 mg/L	O 20. Land Multiplier ratio	4. Recommended Minimum Cost \$
December 2	21. Clear/Grub Acres acres	
Record Number 2 of 2	22. Clear and Grub Unit Cost \$/acre	45. Total Cost 637 \$

Project P9

Site Name Porter

AMD TREAT ENGINEERING COST

1. Capital Cost * 5,993 \$

C 2. Per Cent of Capital Cost 10.00 %

C 3. Actual Engineering Cost \$

4. Total Engineering Cost 599 \$

* Total Capital Cost minus Engineering and Land Access Capital Cost

Printed on 05/09/2023



Project P9

Site Name Porter

AMD TREAT SAMPLING



Sampling Name P9

1. Unit Labor Cost	35.00 \$/hr				
2. Collection Time per Sample	0.17 hours/sample				
3. Travel Time	0.00 hr				
4. Sample Frequency	1.67 samples/mo				
5. Lab Cost Per Sample	33.50 \$/sample				
6. Number of Sample Points	1 points				
C Enter Established Annual Sampling Cost					
7. Actual Annual Sampling Cost	\$				

Sampling Sub-Totals

- 8. Yearly Sample Analysis Cost 671 \$
 - 9. Yearly Travel Cost 0 \$
 - 10. Yearly Collection Cost 119 \$

11. Sampling Cost 790 \$

Record Number 1 of 1

Project P9

Site Name Porter

AMD TREAT

LABOR



<u>,</u>	
© Estimate Labor Cost	
1. Site Visits per Week	2.00
2. Site Labor Time per Visit	0.50 hours
3. Travel Time per Visit	1.00 hours
4. Unit Labor Cost	35.00 \$/hour
C Enter Established Annual Labor	Cost
5 Actual Annual Labor Cost	\$

6. Total Cost 5,460 \$

Record Number 1 of 1

Labor Name P9 Inspection

Project PS

Site Name Porter

AMD TREAT

MAINTANENCE

Estimate Maintenance Cost

1. Percent of Active Cost 3.50 %

2. Percent of Passive Cost 3.50 %

3. Percent of Ancillary Cost * 3.50 %

4. Percent of Other Capital Cost 3.50 %

C Enter Established Annual Maintenance Cost

5. Annual Maintenance Cost

Maintenance Sub-Totals

6 Total Maintenance Active Cost 54 \$

7. Total Maintenance Passive Cost 0 \$

8. Total Maintenance Ancillary Cost 65 \$

9. Total Maintenance Other Capital Cost 90 \$

10. Total Maintenance Cost 210 \$



^{*} Ancillary Cost does int include Cost for Land Access and Engineering Cost

Project P9

Site Name Porter

AMD TREAT CHEMICAL COST

- COMP

	E. Anhydrous Ammonia ?		23. Ammonia Purity	24. Mixing Efficiency of Ammonia		25. Ammonia Non-Bulk Unit Cost	26. Ammonia Bulk Unit Cost	F. Soda Ash?	27. Itration?	29. Soda Ash Purity // / / / / / / / / / / / / / / / / /	30. Mixing Efficiency of Soda Ash 31 Soda Ash Unit Cost		32. Known Annual Chemical Cost 4,780 \$	Chemical Cost Sub-Totals Chemicals Consume	33. Total Hydrated Lime Cost	34. Total Pebble Lime Cost 0 \$ lbs	35. Total Caustic Soda Cost 0 \$ gals	36. Total Anhydrous Ammonia Cost 0 \$ Ibs	37. Total Soda Ash Cost	38. Total Known Chemical Cost 4,780 \$	39. Total Flocculent Cost 0 \$	40. Selected Chemical: KNOWN CHEMICAL COST	Annual Chemical Cost 4,780 \$
Chemical Cost Name: P9 Caustic Soda	C A. Hydrated Lime?	2. Hydrated Lime Titration Amount Ime / gal of H2O	3. Hydrated Lime Purity	4. Mixing Efficiency of Hydrated Lime 24.	5. Hydrated Lime Unit Cost	B. Pebble Quick Lime?		8. Pebble Lime Purity %	9. Mixing Efficiency of Pebble Lime	O Delivered in Bags 10. Pebble Lime Bag Unit Cost	O Bulk Delivery 11. Pebble Lime Bulk Unit Cost \$\infty\$		• dal ofcaustic			lency of Caustic	O Non-Bulk Delivery	9	17. Caustic Bulk Unit Cost	38	☐ 18. Flocculents?	19. Flocculent Consumption gal/hr 40.	20. Flocculent UnitCost \$/gal
	Opening Screen Water Parameters	Influent Water	Parameters	that Affect Chemical Cost	Calculated Acidity	65.38 mg/L	Alkalinity 8.17 mg/L	Calculate Net	Acidity	(Acid-Alkalinity) Enter Net Acidity • manually	Net Acidity (Hot Acidity)	57.33 mg/L	Design Flow	5.80 gpm	Typical Flow	_	0.05 mg/L	Aluminum	Manganese Manganese	12.23 mg/L	- 21	Record Number	1 of 1

	Project P9	- ((
	olle Name Polle	
	AMD TREAT	
Opening Screen	SLUDGE REMOVAL	THEFIT
Water Parameters	Sludge Removal Name Pump to boreholes twice/yr. 8 hr labor (\$35/hr),	
Influent Water Parameters	Selection for Method 1. Select One of Removing Sludge	Concentrations from Main Water Quality Screen 14. Iron Concentration 0.05 mg/L
Sludge Removal	C Sludge Removal by \$ per Gallon	15. Manganese Concentration 12.23 mg/L
Calculated Acidity 65.38 mg/L	2. Sludge Removal Unit Cost \$/gal	16. Aluminum Concentration 9.10 mg/L
Alkalinity	m Truck	
8.17 mg/L	3. Vacuum Truck Unit Cost	
	4. Mobilization Cost	18. Percent Solids
Calculate Net	5. Hours to be Used hr	19. Sludge Density hs/ga
Acid-Alkalinity)	C Sludge Removal by Mechanical Excavation	20. Titration?
© Enter Net Acidity	6. Mechanical Excavation Unit Rate \$/hr	21. Gal. of Sludge per Gal of Water Treated
Net Acidity	7. Mobilization Cost	
(Hot Acidity)	8. Hours to be Used hr	22. Estimated Sludge Volume 3 yd3/yr
57.33 mg/L	C Sludge Removal by Lagoon Cleaner	Cost for Sludge Removal Types
	9. Lagoon Cleaning Unit Rate	23. Removal by \$ per Gallon 39 \$
Typical Flow	10. Mobilization Cost	24. Removal by Vacuum Truck 5
2.80 gpm	11. Hours to be Used	25. Removal by Mechanical Excavation \$
Total Iron	6 Actual Sludge Removal Cost	26. Removal by Lagoon Cleaner 6
	12. Actual Sludge Removal Cost 960 \$	27. Actual Sludge Removal Cost 960 \$
Mangapese 9 mg/L		Sludge Removal Sub-Totals
12 mg/L	13. Off Site Disposal Cost 0.00 \$	28. Currently Selected Removal Cost 960 \$
		Dhie Off Site Disposal Cost

Record Number 1 of 1

Project P9

Site Name Porter



AMD TREAT OTHER COST

RMOTRERT

Oher Cost Name P9 system				
A. Description of Item	B. Unit Cost Per Item	C. Quantity	D. Total Item Cost	E. Capital Cost Annual Cost
1. Shed	1,500.00	1	1,500	Capital Cost Annual Cost
2. Caustic Flush Tank	795.00	1	795	Capital Cost Annual Cost
3. Plug Well 1 - 6" D borehole,1 cu yd conc	150.00	1	150	Capital Cost Cannual Cost
4. Plug Well 2 - 6" D borehole,1 cu yd conc	150.00	1	150	Capital Cost Capital Cost
5. Snow Plowing	250.00	1	250	Capital Cost Annual Cost
6.	0.00	0	0	Capital Cost
7.	0.00	0	0	Capital Cost Annual Cost
8.	0.00	0	0	Capital Cost
9.	0.00	0	0	Capital Cost
10.	0.00	0	0	Capital Cost
11.	0,00	0	0	Capital Cost
12.	0.00	0	0	Capital Cost Capital Cost
13.	0.00	0	0	Capital Cost
14.	0.00	0	0	Capital Cost Capital Cost
15.	0.00	0	0	Capital Cost Capital Cost

Record Number 1 of 1

Curent Capital Cost	2,595 \$
Current Annual Cost	250 \$

Total Capital Cost	2,595	\$
Total Annual Cost	250	\$

EXHIBIT F-4

Project P9

Site Name Porter

AMD TREAT RECAPITIZALITION COST



AMDTREAT

Calculation Period L	75 yrs	Inflation Rate	3.10 %	Net Return Rate	8.43 %
Recapitizalition Name	Trust Fund @ 8.	43%			

A.	В	С	D	E	F	G
Description of Item	Unit Cost Per Item	Quantity	Total Item Cost	Life Cycle	Number of Periods	Total PV
1. Shed	1,500	1	1,500	30	2	404
2. Caustic Flush Tank	795	1	795	15	5	688
3. Caustic Valve	100	1	100	5	15	341
4. Caustic Tank	1,145	1	1,145	30	2	308
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
11.2	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 3,540 \$ PV Grand Total 1,740 \$

Project <u>P9</u>
Site Name <u>Porter</u>

 Life of Trust Fund
 75
 yrs

 Inflation Rate
 3.10
 %

 Return Rate
 8.43
 %

AMD TREAT RECAPITIZALITION COST



AMOTREAT

	1					RMDTR	
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
	1,740	1,740	Initial Fund Amount	ALTERNATION OF THE PARTY OF THE			
1	1,886	1,886	0	51	= 12,741	12,741	0
2	2,045	2,045	0	52	13,815	13,815	0
3	2,218	2,218	0	53	14,979	14,979	0
4	2,405	2,405	0	54	16,242	16,242	0
5	2,607	2,491	116	55	17,611	17,075	536
6	2,701	2,701	0	56	18,515	18,515	0
 7	2,929	2,929	0	57	20,076	20,076	0
8	3,176	3,176	0	58	21,768	21,768	0
9	3,443	3,443	0	59	23,603	23,603	0
10	3,734	3,598	135	60	25,593	3,486	22,106
11	3,901	3,901	0	61	3,780	3,780	0
12	4,230	4,230	0	62	4,099	4,099	0
13	4,587	4,587	0	63	4,444	4,444	0
14	4,974	4,974	0	64	4,819	4,819	0
15	5,393	3,978	1,414	65	5,225	4,498	727
16	4,314	4,314	0	66	4,877	4,877	.0
17	4,677	4,677	0	67	5,288	5,288	0
18	5,072	5,072	0	68	5,734	5,734	0
19	5,499	5,499	0	69	6,218	6,218	
20	5,963	5,779	184	70	6,742	5,894	847
21	6,266	6,266	0	71	6,391	6,391	0
22	6,794	6,794	0	72	6,930	6,930	0
23	7,367	7,367	0	73	7,514	7,514	0
24	7,988	7,988	0	74	8,148	8,148	0
25	8,662	8,447	214	75	8,835	0,140	8,835
26	9,159	9,159	0	76	0,000	0	0
27	9,931	9,931	0	77	0	0	0
28	10,769	10,769	0	78	0	0	0
29	11,676	11,676	0	79	0	0	0
30	12,661	3,814	8,846	80	0	0	0
31	4,136	4,136	0,010	81	0	0	0
32	4,485	4,485	0	82	0	0	0
33	4,863	4,863	0	83	0	0	0
34	5,273	5,273	0	84	0	0	0
35	5,717	5,426	291	85	0	0	0
36	5,884	5,884	0	86	0	0	0
37	6,380	6,380	0	87	0	0	0
38	6,918	6,918	0	- 88	0	0	0
39	7,501	7,501	0	89	0	0	0
40	8,133	7,794	339	90	0	0	0
41	8,451	8,451	0	91	0	0	0
42	9,164	9,164	0	92	0	0	0
43	9,936	9,936	0	93	0	0	0
44	10,774	10,774	0	94	0	0	0
45	11,682	8,146	3,535	95	0	0	0
46	8,833	8,833	0	96	0	0	0
47	9,578	9,578	0	97	0	0	0
48	10,385	10,385	0	98	0	0	0
49	11,261	11,261	0	99	0	0	- 0
50	12,210	11,750	460	100	0	0	0

EXHIBIT F-5

5/9/2023

TREATMENT BOND/TRUST CALCULATOR

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

Date (mm/dd/yy):

Prepared For: Forcey Coal, Inc. - Porter

Treatment System(s) ID: P-9

Remaining Time on Permit:

Inflation Rate: 3.1% Yrs to Treat start: Annual Treatment Cost: \$12,450.00 Trust Fees: 1.50% Bond (not needed for rec): \$0.00 Investment Ratios: 80% stock: 20% bond: 8.43% Effective Rate of Return: Volatility Index: 1.16 Rec Bond Rate of Return: 6.00%

1 years

Options option #1	O&M only	Total with Recap	Total with Recap <u>& Insurance</u>	
conventional bond: bond adjustment:	\$455,454.92 \$455,454.92	\$459,634.62 \$459,634.62	\$479,222.26 \$479,222.26	bond in year 2
option #2 fully funded trust:	\$285,398.85	\$287,138.85	\$293,721.10	trust in year 1

PV of Recap (todays \$\$) @	8.43%	Eff RoR &	3.1% Inf:	\$1,740.00 for trust in year 1	
PV of Recap (todays \$\$) @	6.00%	Eff RoR &	3.1% Inf:	\$3,588.00 for bond in year 1	\$4,179.71 for bond in year 2

Liability Insurance Factor @	\$1.00 per year, per \$1000 in the total PV of the Trust:	\$287.14 per year	PV Insurance:	\$6,582.26
Liability Insurance Factor @	\$1.00 per year, per \$1000 in total Bond:	\$459.63 per year	PV Insurance:	\$16,814.69

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 G

5/12/2023

TREATMENT BOND/TRUST CALCULATOR

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

Date (mm/dd/yy):

Prepared For: Forcey Coal, Inc. Trust Fund

Treatment System(s) ID: D7, D14, P4, P9

Inflation Rate: 3.1%
Yrs to Treat start: 0
Annual Treatment Cost: \$19,098.00
Trust Fees: 1.50%
Bond (not needed for rec): \$0.00
Investment Ratios:

bond: 20%
Effective Rate of Return: 8.43%
Volatility Index: 1.16

stock:

80%

Rec Bond Rate of Return: 6.00%

Remaining Time on Permit: 1 years

Options	O&M only	Total with Recap	Total with Recap <u>& Insurance</u>	
option #1 conventional bond:	\$698,656.87	\$802,359.71	\$836,552.81	hand in year
				bond in year
bond adjustment:	\$698,656.87	\$802,359.71	\$836,552.81	2
option #2				
fully funded trust:	\$437,794.96	\$486,816.96	\$497,976.55	trust in year 1

PV of Recap (todays \$\$) @	8.43%	Eff RoR &	3.1% Inf:	\$49,022.00 for trust in year 1	
PV of Recap (todays \$\$) @	6.00%	Eff RoR &	3.1% Inf:	\$89,022.00 for bond in year 1	\$103,702.85 for bond in year 2

Liability Insurance Factor @	\$1.00 per year, per \$1000 in the total PV of the Trust:	\$486.82 per year	PV Insurance:	\$11,159.60
Liability Insurance Factor @	\$1.00 per year, per \$1000 in total Bond:	\$802.36 per year	PV Insurance:	\$29,352.50

Fields in RED can be updated
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Highlighted Fields in GREEN are final amounts

EXHIBIT H

PARTICIPATION AGREEMENT FOR THE CLEANS STREAMS FOUNDATION, INC. TRUST

This Participation Agreement ("Participation Agreement") entered into this day of day of 2023, by and between FORCEY COAL, INC., a Pennsylvania corporation, with its principal place of business at 475 Banion Road, Madera, Pennsylvania 16661 ("Participant"), and the CLEAN STREAMS FOUNDATION, INC. ("Trustee" or "Foundation"), a Pennsylvania nonprofit corporation, with its registered place of business at 160 North McKean Street, Kittanning, Pennsylvania 16201; and a mailing address of 180 North Mill Street, Lexington, Kentucky 40507.

WHEREAS, the Participant wishes to provide funds or other assets or guarantees to assure that funds will be available in the future for the operation of certain treatment systems, for the prevention of pollution, and for the protection of natural resources; and

WHEREAS, the Trustee has established, through a Declaration of Trust, dated April 7, 2001, a Trust which purpose is to help assure that funds are available to the Commonwealth of Pennsylvania in the future to operate and maintain treatment systems, to prevent pollution, to protect natural resources from the adverse impacts of untreated discharges into waters of the Commonwealth, and for the health and welfare of the public (the "Trust"); and

WHEREAS, the Trustee has agreed and is willing to accept the Participant's funds or other assets or guarantees and perform the duties as are required to be performed pursuant to this Participation Agreement and the Declaration of Trust; and

NOW THEREFORE, in consideration of the foregoing and of the mutual promises and undertakings of the parties as set forth herein, and with the intention of being legally bound hereby, the parties agree as follows:

ARTICLE ONE DEFINITIONS

- §1.1 The "Department" means the Pennsylvania Department of Environmental Protection, and its successor if any, which is the governmental agency with responsibilities related to the administration of the water pollution control and mining reclamation programs in Pennsylvania.
- §1.2 "Operate" means, but is not limited to, the operation, maintenance, improvement, and replacement of treatment facilities approved by the Department and any other facilities which may be required in the future.
- §1.3 "Participant" means an individual, organization, or corporation that has elected to participate in the Trust pursuant to a Participation Agreement entered into between the Participant and the Foundation, for purposes of providing funds and/or financial guarantees to assure that funds will be available in the future for the operation of certain treatment systems, for the public purpose of prevention or abatement of pollution, and for the protection of natural resources, the environment, and for the health and welfare of the public.
- §1.4 "Treatment Systems" means those certain discharges and treatment facilities and activities for which a Participant has provided funds or other assets or guarantees to be held in trust by the Foundation.
- §1.5 "Trustee" means the Foundation acting as trustee under the terms and provisions of the Declaration of Trust and a Participation Agreement entered into with a Participant.

ARTICLE TWO PARTICIPATION IN THE TRUST

§2.1 The Participant agrees to provide certain funds, assets, and/or guarantees to be held by the Trustee for purposes of assuring that funds are available in the future for the

operation of certain treatment systems, for the prevention of pollution, and for the protection of natural resources; which are more particularly described in Exhibit "A" attached hereto (hereinafter "Treatment Systems").

- §2.2 The Trustee agrees to establish within the Trust Fund a Sub-Account designated as "Sub-Account For Forcey Coal" ("Sub-Account," also referred to as the "Forcey Water Treatment Trust").
- §2.3 The Participant agrees to make total payments or transfers to the Trust as agreed upon between the Participant and the Department pursuant to the Agreement between the Department and the Participant dated <u>December 7, 2023</u>, which is attached hereto as Exhibit "A" (hereinafter the "DEP Agreement").
- §2.4 Any guarantees, including but not limited to, letters of credit, insurance, surety bonds, etc., delivered by the Participant shall be held by the Trustee until the Department either directs the Trustee to release such guarantee or portion thereof or the Department directs the Trustee to forfeit said bonds or enforce said guarantee and for the Trustee to deposit the proceeds of such guarantee into the Trust Fund. The Trustee shall be under no obligation to pay any premiums or other costs associated therewith. Instead, all such premiums and costs, as well as the responsibility for maintaining the guarantees in full force and effect, shall remain the obligation of the Participant. The Trustee shall take no action with respect to guarantees except as directed, in writing, by the Department, and the Trustee shall not be liable to any party for acting in accordance with such directions.
- §2.5 Any payments made by the Participant or on its behalf to the Trustee for deposit into the Trust shall consist of cash, bank checks, bank wire transfers, negotiable instruments, or other property acceptable to the Trustee. The Trustee shall have no responsibility for the

amount or adequacy of such payment, but the Trustee shall notify the Department in writing of any deficiencies in the payments agreed to be made by the Participant whenever the Trustee has knowledge of such deficiencies.

ARTICLE THREE ADMINISTRATION

- §3.1 The principal of the Sub-Account shall consist of:
- (a) The payments or transfers to the Trustee made by the Participant pursuant to this Agreement for said Sub-Account.
- (b) Such payments from time to time and at any time to the Trustee as such may be directed by the Department pursuant to any agreement between the Department and the Participant.
- (c) Cash, funds or property transferred from any person to the Trustee and accepted by the Trustee for said Sub-Account.
- (d) Any proceeds from surety bonds which are transferred to the Trustee for said Sub-Account.
- (e) All investments, reinvestments, assets or proceeds attributable to or derived from the foregoing items in this §3.1.
- (f) All earnings, accretions and profits received with respect to the foregoing items in this §3.1.
- §3.2 The Trustee shall hold and administer the funds of the Sub-Account in accordance with the terms and conditions of the Declaration of Trust, this Participation Agreement, and the DEP Agreement.
- §3.3 The Trustee shall distribute such amounts from the Sub-Account as the Department shall direct to pay for the operation of the Treatment System or Treatment

Systems. This amount may be paid to a third party administrator to the Trust, who shall be responsible for paying the costs of operating the Treatment System in accordance with any instructions that may be issued by the Department in relation thereto.

- §3.4 The Participant hereby adopts the Declaration of Trust as the document which governs the administration of this Participation Agreement and the Sub-Account and directs the Trustee to hold and administer the Sub-Account in accordance with the terms and conditions of the Declaration of Trust. The Participant acknowledges that the Commonwealth of Pennsylvania acting through the Department is the legal beneficiary of the Trust and has all rights of a beneficiary under the law, as well as the rights granted under the Declaration of Trust. The Department shall have access to the Trust as provided therein.
- §3.5 The funds in the Sub-Account and any other property held by the Trustee pursuant to this Participation Agreement shall not be subject to assignment, alienation, pledge, attachment, garnishment, sequestration, levy or other legal process, either voluntary, involuntary or by operation of law, by, on behalf of, or in respect of the Participant and shall not be subject or applied to the debts, obligations or liabilities of the Participant, including, without limitation, any direct action or seizure by any creditor or claimant under any writ or proceeding at law or in equity. Furthermore, the Participant shall have no legal title to any part of the Trust Fund, and it is the intention of the parties to this Participation Agreement that the Participant's entry into the Trust shall extinguish and remove all of Participant's interest in the Trust from Participant's estate under the Bankruptcy Code or similar laws.
- §3.6 Except as otherwise provided in the Declaration of Trust or this Participation

 Agreement, all payments made to the Trustee or deposits into the Trust by the Participant shall be irrevocable once made, and upon delivery thereof by the Participant, all interest of the

Participant therein shall cease and terminate, and no part thereof, nor any income therefrom, shall be used for or devoted to purposes other than for the exclusive benefit of the Department and the Trust as provided herein.

- §3.7 The Trustee shall at least quarterly furnish the Participant a statement providing an accounting of all transactions involving the Sub-Account and confirming the value of the Sub-Account. Such statement shall value Trust investments at market value which shall be that market value determined not more than thirty (30) days prior to the date of statement.
- §3.8 The Trustee shall be responsible for the keeping of all appropriate books and records relating to the receipt and disbursement of all moneys and assets under this Agreement. The Trustee shall also cause to be prepared all income tax or information returns required to be filed with respect to the Trust and shall execute and file such returns. Each Participant, upon request, shall furnish the Trustee with such information as may be reasonably required in connection with the preparation of such income tax or information returns.

ARTICLE FOUR AMENDMENTS

§4.1 This Participation Agreement may be amended by an instrument in writing, executed by the Participant and the Trustee, with the consent and acknowledgment of the Department, or by the Trustee and the Department in the event Participant ceases to exist or defaults, but during the existence of the Participant any amendment under this paragraph cannot in any manner affect the irrevocable nature of the Trust.

ARTICLE FIVE NOTICES

§5.1 All notices, inquiries, directions or other written communications made or given pursuant to the Trust shall be given to the Participant, the Department and the Trustee by

certified mail, return receipt requested, addressed to the following addresses, and shall be deemed to be received upon the earlier of the date of signed receipt of the certified mailing or seven (7) days following the date of mailing:

Participant: Forcey Coal, Inc.

475 Banion Road Madera, PA 16661

Trustee:

Clean Streams Foundation, Inc. c/o Dean K. Hunt, Administrator

180 N. Mill Street

Lexington, Kentucky 40507

Beneficiary:

Pennsylvania Department of Environmental Protection

Director, Bureau of Mining and Reclamation

Fifth Floor, Rachel Carson Building

400 Market Street

Harrisburg, PA 17105-8461

§5.2 Any change in the above addresses shall be made by giving notice to all parties to this Participation Agreement.

ARTICLE SIX DISPUTES

- §6.1 In the event of any dispute between the parties, the parties agree to attempt to resolve the dispute through negotiation or a method of alternative dispute resolution. No litigation shall be commenced without a certification by an authorized officer, employee, or agent of any party that the dispute cannot be resolved by negotiation or alternative dispute resolution provided in writing at least 20 days before commencing legal action.
- §6.2 A party receiving such notice shall have 10 days after receipt of said notice to demand that said dispute be resolved by binding arbitration. If arbitration is requested, the dispute shall be resolved in accordance with the arbitration rules of the American Arbitration Association then in effect without regard to the date of execution of this Agreement.

ARTICLE SEVEN CONSTRUCTION

- §7.1 As used in this Agreement, words in the singular include the plural and words in the plural include the singular. Words used in this Agreement shall be given the meaning set forth in the Declaration of Trust, or in the absence of a definition therein, their plain and ordinary meaning, except that, words used in a financial or investment context that are terms of art shall be given their commonly accepted meaning when used in the context of financial services and investment practices. The headings of each section of this Agreement are for descriptive purposes only and shall not affect the interpretation or legal efficacy of this Agreement.
- §7.2 Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability. Such prohibition or unenforceability shall not invalidate the remaining provisions hereof; nor shall such prohibition or unenforceability in a jurisdiction render any provision invalid or unenforceable in any other jurisdiction.
- §7.3 All covenants and agreements contained herein shall be binding upon and inure to the benefit of the Participant, the Department and the Trustee, as well as their successors and assigns. Similarly, any request, notice, direction, consent, waiver or other writing or action taken by the Participant, the Department or the Trustee shall bind their successors and assigns.
- §7.4 This Agreement shall be construed and governed in all respects in accordance with the laws of the Commonwealth of Pennsylvania.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective officers or representatives duly authorized and their corporate seals to be hereunto affixed and attested as of the date first written above.

PARTICIPANT:
By Wariol W. horary Its President
TRUSTEE:
THE CLEAN STREAMS FOUNDATION, INC. By Its Administrator
COMMONWEALTH OF PENNSYLVANIA, COUNTY OF Clearfield, to-wit:
The foregoing instrument was acknowledged before me this 1th day of April , 2023, by David for cay, the president of FORCEY COAL, INC.
My commission expires Feb 23, 2025
Commonwealth of Pennsylvania - Notary Seal APRIL A SPENCER - Notary Public Elearfield County My Commission Expires Feb 22, 2025 Commission Number 1305780 Commission Number 1305780 Commission Number 1305780 Commission Number 1305780
COMMONWEALTH OF KENTUCKY, COUNTY OF FAYETTE, to-wit:
The foregoing instrument was acknowledged before me this 27 day of April , 2023, by Dean K. Hunt, the Administrator of the CLEAN STREAMS FOUNDATION, INC.
My commission expires Nov. 7, 2025.
Paulina Jypsee Hedrick Notary Public, ID KYNP38970 State at Large, Kentucky My Commission Expires on Nov. 7, 2025

CONSENT AND ACKNOWLEDGMENT

The Department of Environmental Protection hereby consents to Participant entering into this Participation Agreement pursuant to the Agreement between the Participant, Forcey Coal, Inc., and the Department dated April 27,2023 and acknowledges the Commonwealth of Pennsylvania's and the Department's status as the beneficiary of the Trust and to evidence its consent and acknowledgment of the terms and conditions set forth herein, as well as the powers and authorities granted to the Department hereunder.

BENEFICIARY:

THE DEPARTMENT OF ENVIRONMENTAL PROTECTION COMMONWEALTH OF PENNSYLVANIA

Its District Mining Manager

EXHIBIT "A"

AGREEMENTS BETWEEN THE PARTICIPANT AND THE DEPARTMENT

EXHIBIT I

BILL OF SALE AND LICENSE AGREEMENT

This Bill of Sale and License Agreement is entered into this 11th day of 2023, by and between Forcey Coal, Inc. with a mailing address of 475 Banion Rd., Madera, PA 16661 ("Forcey Coal" or "Transferor") and the Clean Streams Foundation, Inc. with a mailing address of 180 North Mill Street, Lexington, Kentucky 40507, as Trustee ("Trustee") of the Forcey Water Treatment Trust ("Forcey Coal Trust").

Whereas, Forcey Coal has entered into a Post-Mining Treatment Trust Consent Order and Agreement ("2009 Trust COA") dated August 18, 2009, a First Amendment to the 2009 Trust COA dated December 4, 2014, and a Second Amendment to the 2009 Trust COA dated December 7, 2023 with the Commonwealth of Pennsylvania, Department of Environmental Protection (the "Department");

Whereas, Forcey Coal has entered into a Participation Agreement for the Clean Streams Foundation, Inc. Trust dated April 27, 2023 with the Clean Streams Foundation, Inc. which established the Forcey Coal Trust; and

Whereas, the Department requires Transferor to immediately transfer the water treatment equipment, appurtenances, and facilities to the Trustee to facilitate continued treatment of water and protection of the environment in the event Forcey Coal 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 Clean Streams Foundation, Inc., as Trustee of the Forcey Coal Trust, all of its right, title and interest to the equipment, appurtenances, facilities, and other personal property (the "Personal Property") comprising the Delarme Mine D-14 and D-7 Treatment Systems and the Porter Operation P-4 and P-9 Treatment Systems described in Paragraphs S-12, S-23, T-10 and T-22 of the Second COA Amendment, 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 Trustee hereby free and clear of all liens and encumbrances.

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

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

TRANSFEROR: Forcey Coal, Inc.	David Macy (signature)
Witness:	By: Dewidt, Forcey
Deane F. Vorcey	11s: President
TRUSTEE: The Clean Streams Foundation, Inc.	
Witness:	(signature) By:
	Its:

TRANSFEROR: Forcey Coal, Inc.	
	(signature)
Witness:	By:
	Its:
TRUSTEE: The Clean Streams Foundation, Inc.	
	(signature)
Witness:	By: Dean Hunt
Soo Marie Hunt	Its: Administratos

EXHIBIT 1 to Bill of Sale and License Agreement Transferred Personal Property

List of equipment and appurtenances to treat D-14 Discharge

- Limestone Bed
- 125 feet of 6-inch perforated pipe and 6-inch Schedule 40 PVC underdrain pipe and fittings

List of equipment and appurtenances to treat D-7 Discharge

- Limestone Bed
- 125 feet of 6-inch PVC pipe and fittings
- 6-inch Valterra Valve

List of equipment and appurtenances to treat P-4 Discharge

- Weir
- Wetland Outlet Pipe

List of equipment and appurtenances to treat P-9 Discharge

- 500-gallon plastic Caustic Storage Tank with valves and 1/2-inch feeder line.
- 55-gallon Caustic Flush Tank.
- Shed that houses Caustic Flush Tank.
- Caustic Inlet between Caustic Storage Tank and Caustic Flush Tank. Includes gate valve and check valve.
- 30 feet of 3-inch PVC piping for raw water collection. 20 feet of ½-inch PVC caustic feed line. 40 feet of 6-inch flexible corrugated plastic pipe between caustic flush tank and Treatment Pond 1. 40 feet of 4-inch PVC piping between Treatment Pond 1 and Treatment Pond 2 (25 feet) and for final outlet (15 feet).