



DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
EASTERN REGULATORY FIELD OFFICE
501 ADESA PKWY., SUITE 250
LENOIR CITY, TENNESSEE 37771
December 10, 2014

REPLY TO
ATTENTION OF:

Eastern Regulatory Field Office

SUBJECT: File No. 2009-00479; Public Notice No. 13-36, Proposed Wetland Fill, Temporary Culvert Stream Crossings, and Open Water Fill at Tributaries of Straight Creek and Tackett Creek, Cumberland River Mile 582.5L, Clairfield, Claiborne County, Tennessee (Sterling and Strays Mine #1; OSM 3264)

Appolo Fuels, Inc.
Attn: Gary Asher
P.O. Box 1727
Middlesboro, KY 40965

Dear Mr. Asher:

Enclosed is a Department of the Army permit for the subject activity. If changes in the location or plans of the proposed work are necessary for any reason, revised plans should be submitted promptly to this office. No deviations should be made in the approved plans without first obtaining approval from this office.

If you have any questions regarding this matter, please contact Mark M McIntosh at the above address or telephone (865) 986-7296. For additional information about our Regulatory Program, please visit our web site at <http://www.lrn.usace.army.mil/Missions/Regulatory.aspx>.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric G Reusch".

Eric G Reusch
Chief, Eastern Regulatory Section
Operations Division

Enclosures

DEPARTMENT OF THE ARMY PERMIT

PERMITTEE: Appolo Fuels, Inc.
C/o Gary Asher
P.O. Box 1727
Middlesboro, KY 40965

PERMIT NUMBER: LRN-2009-00479

ISSUING OFFICE: Nashville District Corps of Engineers

NOTE: The term you and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity under the authority of the commanding officer. You are authorized to perform work in accordance with the terms and conditions specified below.

PROJECT DESCRIPTION: The authorized work includes (1) the discharge of fill material for the installation and/or replacement of 21 temporary stream crossings in 11 streams (1,225 linear feet total impact) associated with haul road construction, and (2) the discharge of fill material and excavation in 12 wetlands, totaling 2.34 acres, and 6 open waters (ponds) totaling 2.84 acres. The authorized work is required to complete auger and surface coal mining and associated reclamation activities along the Sterling and Strays coal seams as authorized by the Office of Surface Mining and Reclamation and Enforcement (OSMRE) Surface Mining Control and Reclamation Act permit No. 3264.

PROJECT LOCATION: The proposed surface mining activities are located in tributaries of Tackett Creek, Valley Creek, Hurricane Creek, Pigeon Roost Branch, Bear Creek, and Spruce Lick Branch located in Claiborne County, Tennessee. The project site is located within the Straight Creek-Clear Fork watershed identified by the Hydrologic Unit Code (HUC 12 051301010601) and Tackett Creek watershed (HUC 12 051301010602). Straight Creek-Clear Fork and Tackett Creek are part of the Cumberland River watershed (HUC 05130101). The project site can be found on the Eagen and Fork Ridge 7.5 Minute quadrangle maps. Approximate center coordinates for the mining operation are Latitude 36.55271°N, Longitude 83.83743°W.

PERMIT CONDITIONS:

1. The time limit for completing the work authorized ends on **December 10, 2024**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you must make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity, or should you desire to abandon it without a good faith transfer, you may obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions: Special Conditions of this authorization are provided on Pages 5 through 7 of this permit.

Further Information:

Congressional Authorities. You have been authorized to undertake activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899

(X) Section 404 of the Clean Water Act

Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to:

- a. When you fail to comply with the terms and conditions of this permit.
- b. When the information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. When significant new information surfaces which this office did not consider in reaching the original public interest decision. Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as this specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

Time Extensions. Permit condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Gary Asher
(Permittee)

11/24/14
(Date)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

John L. Hudson, LTC Corps of Engineers
(District Commander)

By: Eric Reusch
Eric Reusch
Chief, Eastern Regulatory Section
Operations Division

12/10/2014
(Date)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(Transferee)

(Date)

Department of the Army Permit Special Conditions (File No. LRN-2009-00479) Page 1 of 3

1. The authorized work shall be performed in accordance with the attached plans (LRN-2009-00479, Sheets 1-5); culvert placement summary, wetland and pond location summary, location map, jurisdictional waters map, typical culvert drawing, and overview map.
2. This authorization remains contingent upon, and must be constructed in accordance with, the project's approved Office of Surface Mining and Reclamation and Enforcement (OSMRE) Surface Mining Control and Reclamation Act permit No. 3264 issued on July 18, 2014. Should new information regarding the scope and/or proposed impacts of the project become available that was not submitted to this office during our review of the proposal, the Permittee shall submit written information concerning proposed modification(s) to this office for review and approval. If project plans change that would include additional impacts to waters of the United States (WOUS), the Permittee shall contact the U.S. Army Corps of Engineers Regulatory Branch (USACE) to obtain authorization prior to placing fill material in WOUS.
3. The Permittee shall comply with the conditions of the Aquatic Resource Alteration Permit/ 401 Water Quality Certification NR13MS.008 (attached), issued on July 24, 2014 and the conditions of the NPDES Permit No. TN0069281 (attached), issued on August 18, 2014.
4. In-Lieu Fee Program (ILF) Credit Purchase: Prior to initiating the authorized work in waters of the United States, the Permittee shall provide verification to the Corps that 2.34 ILF wetland credits have been purchased from the Tennessee Mitigation Fund. The required verification shall reference this project's permit number (LRN-2009-00479).
5. A minimum 50 foot riparian buffer zone on each side of the stream shall be preserved in its natural state above and below each road crossing within the mine permit boundary. Prior to the commencement of mining activities for this project, the limits of the riparian buffer zones shall be clearly flagged and staked by you and/or your contractors. All mining personnel shall be familiar with the locations of all stream channels to prevent encroachment from heavy equipment.
6. Best management practices (BMPs) shall be implemented during construction of the road crossings. BMPs include but are not limited to: utilization of silt fences, straw bales, check dams, limiting vegetation removal and bank shaping to the maximum extent practicable, mulching and seeding, and the prohibition of the use or storage of toxic or hazardous materials within the construction areas. Construction activities shall be performed during low flow conditions. All disturbed areas shall be seeded and mulched to minimize erosion. Appropriate bank protection measures shall be installed in channel or on barren areas requiring erosion control, including but not limited to native grasses and forbs, vegetation, and other acceptable clean non-contaminated material.
7. Upon completion of the coal extraction and reclamation activities, the Permittee shall remove all culverts authorized by this permit and restore the associated stream channels to a natural configuration, hydrology, and pre-construction functional capacity. The channels shall be stable after completion of channel restoration activities. A stable channel would not show evidence of significant bank erosion, head cutting, or other signs of instability.

Department of the Army Permit Special Conditions (File No. LRN-2009-00479) Page 2 of 3

8. The Permittee shall submit an as-built report for each stream crossing following the removal of culverts and completion of stream restoration at locations listed in the permit and permit drawings. The report shall show plan view and cross-section drawings for each restored crossing. The Permittee shall arrange an on-site meeting with the USACE within 30 days of submittal of the as-built report to determine if the stream crossing restoration sites have been constructed in accordance with the approved plans and permit conditions. Deficiencies, if any, shall be coordinated with the USACE and corrective measures shall be developed by the Permittee to allow the stream restoration areas to reach their pre-construction functional capacity. The permittee is responsible for implementing appropriate corrective measures as recommended by the USACE.
9. A determination of culvert removal and stream restoration success would be made by the USACE. If stream restoration has been implemented in accordance with permit conditions, the applicant would be released from future monitoring requirements or contingency measures. Otherwise, the applicant may be required to implement contingency measure(s), including additional mitigation to include payment of in-lieu fees. The responsibility of the permittee to complete the required culvert removal and stream restoration shall not be considered fulfilled until success has been demonstrated and written verification has been received from USACE.
10. Section 7 obligations under Endangered Species Act (ESA) shall be reconsidered if new information reveals impacts of the proposed project that may affected federally listed species or critical habitat in a manner not previously considered, if the proposed project is subsequently modified to include activities which were not considered during Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS), or new species are listed or critical habitat designated that might be affected by your proposed project. This Department of the Army Permit authorization does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the USFWS, both lethal and non-lethal “takes” of protected species are in violation of the ESA.
11. The Permittee shall conduct culvert replacement on the Sterling Bench at the Pigeon Roost Branch crossing (STR-2, 36.57085N, 83.85147W) and the Unnamed Tributary to Tackett Creek crossing (STR-10, 36.54282N, 83.83244W) with open-bottom culverts to address existing and/or potential passage of blackside dace.
12. In the event any previously unknown historic or archaeological sites, artifacts (funerary objects, sacred objects, and objects of cultural matrimony/patrimony, etc.) or human remains are uncovered while accomplishing the activity authorized by this permit, the permittee must cease all work immediately and contact local, state and county law enforcement offices (*only contact law enforcement on findings of human remains*), USACE Regulatory Branch at (615) 369-7500, and the Tennessee Historical Commission (615) 770-1096. The USACE would then initiate the Federal, State and tribal coordination required to comply with the National Historic Preservation Act and applicable State and local laws and regulations. Federally recognized tribes are afforded

Department of the Army Permit Special Conditions (File No. LRN-2009-00479) Page 3 of 3

a government-to-government status as sovereign nations and consultation is required under Executive Order 13175 and 36 CFR Part 800.

Table 1 - Culvert Placement Summary

Location	Number & Diameter (in.)	Length (ft.)	Latitude	Longitude	Additional information
Stream 1 – Sterling	one 24" CMP	60'	36.57089	-83.86423	
Stream 1 – Strays	one 24" CMP	60'	36.56964	-83.86144	
Stream 2 – Sterling	one 36" CMP	60'	36.57085	-83.85147	
Stream 2 – Strays	one 36" CMP	60'	36.57183	-83.85039	
Stream 3 – Sterling	one 36" CMP	60' (40' new impacts)	36.56729	-83.84298	Replaces 18"x20' pipe
Stream 3 – Strays	one 36" CMP	60'	36.56867	-83.84310	
Stream 4 – Sterling	one 36" CMP	60'	36.56707	-83.84240	
Stream 4 – Strays	one 36" CMP	60' (40' new impacts)	36.56740	-83.84135	Replaces 20' hollow logs
Stream 5 – Sterling	one 24" CMP	60'	36.55350	-83.83695	
Stream 5 – Strays	one 24" CMP	60'	36.55376	-83.83563	
Stream 5a- Sterling	one 24" CMP	60'	36.55300	-83.83754	
Stream 5a - Strays	one 24" CMP	60'	36.55276	-83.83571	
Stream 6 – Sterling	one 30" CMP	60'	36.55012	-83.84210	
Stream 6 – Strays	one 30" CMP	60'	36.54876	-83.84053	
Stream 7 – Sterling	one 24" CMP	60' (40' new impacts)	36.54363	-83.84386	Replaces 30"x20' pipe
Stream 7 – Strays	one 24" CMP	60'	36.54372	-83.84178	
Stream 8 – Sterling	one 30" CMP	60' (35' new impacts)	36.53979	-83.83939	Replaces 24"x25' pipe
Stream 8 – Strays	one 24" CMP	60'	36.54064	-83.83848	
Stream 9 – Sterling	one 36" CMP	60' (35' new impacts)	36.53782	-83.83673	Replaces 24"x25' pipe
Stream 10- Sterling	one 36" CMP	60' (35' new impacts)	36.54282	-83.83244	Replaces 18"x25' pipe
Stream 10 - Strays	one 36" CMP	60'	36.54318	-83.83399	

Table 2 – Wetland and Pond Locations at the Proposed Sterling and Strays Mine #1

Wetland ID	Coordinates	Wetland (acres)	Pond (acres)	Isolated (acres)	Total (acres)
A	N 36.56922 W 83.86521	0.44			0.44
B	N 36.56856 W 83.86632	0.59			0.59
C	N 36.5660 W 83.8659	0.24	0.70		0.94
D	N 36.5641 W 83.8661	0.26			0.26
E	N 36.5494 W 83.8415		0.32		0.32
F	N 36.5499 W 83.8425	0.06			0.06
G	N 36.5501 W 83.8431		0.27		0.27
H*	N 36.5520 W 83.8446			0.16	0.16
I*	N 36.5514 W 83.8454			0.05	0.05
J	N 36.55503 W 83.8454	0.38	0.56		0.94
K	N 36.5484 W 83.8476		0.43		0.43
L	N 36.5439 W 83.8469	0.07	0.19		0.26
M	N 36.5446 W 83.8446	0.10	0.37		0.47
N	N 36.56486 W 83.86089	0.20			0.20
Total		2.31	2.84	0.21	5.39

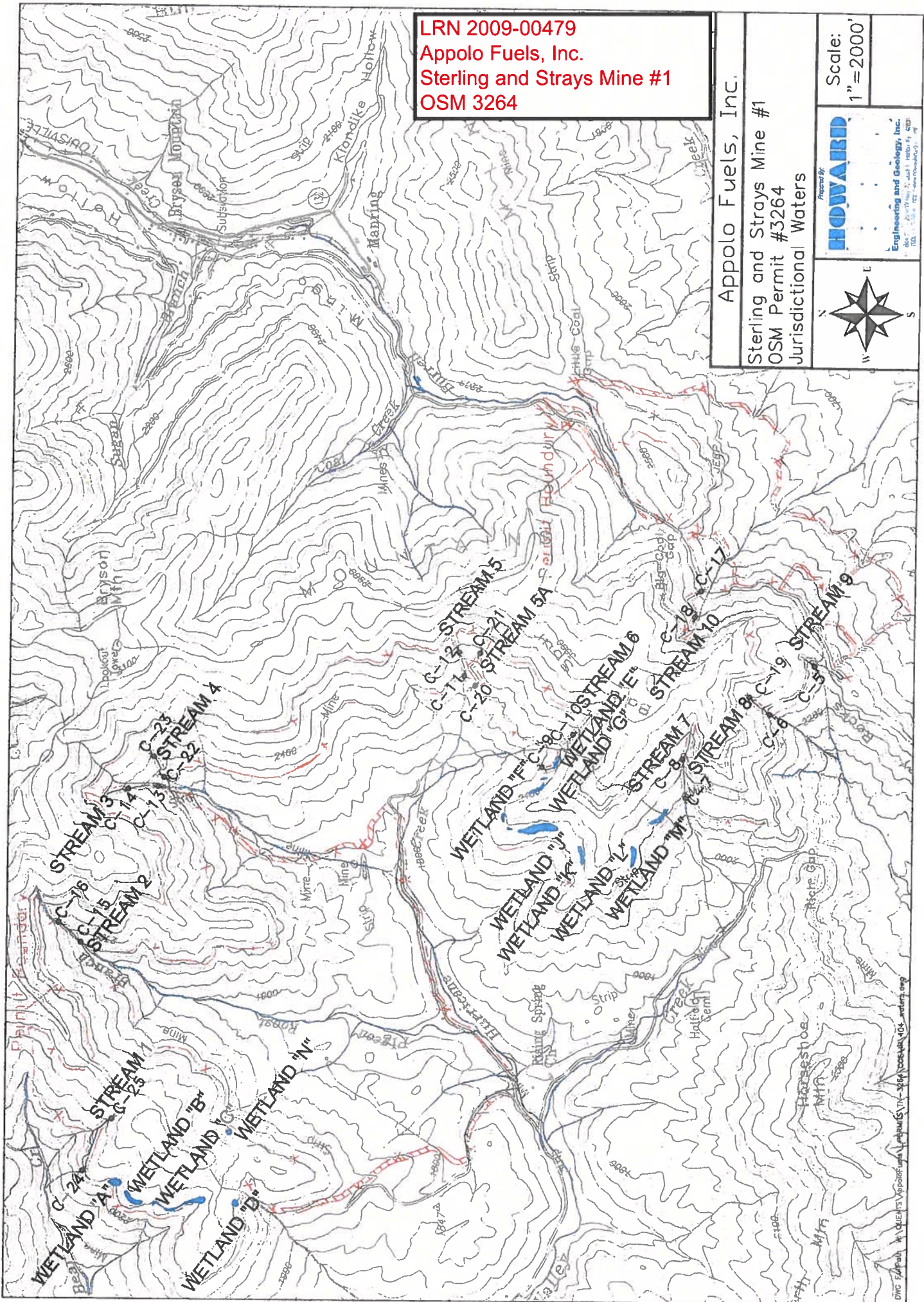
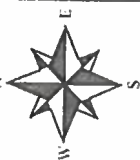
*Wetlands H and I are not jurisdictional waters of the United States.

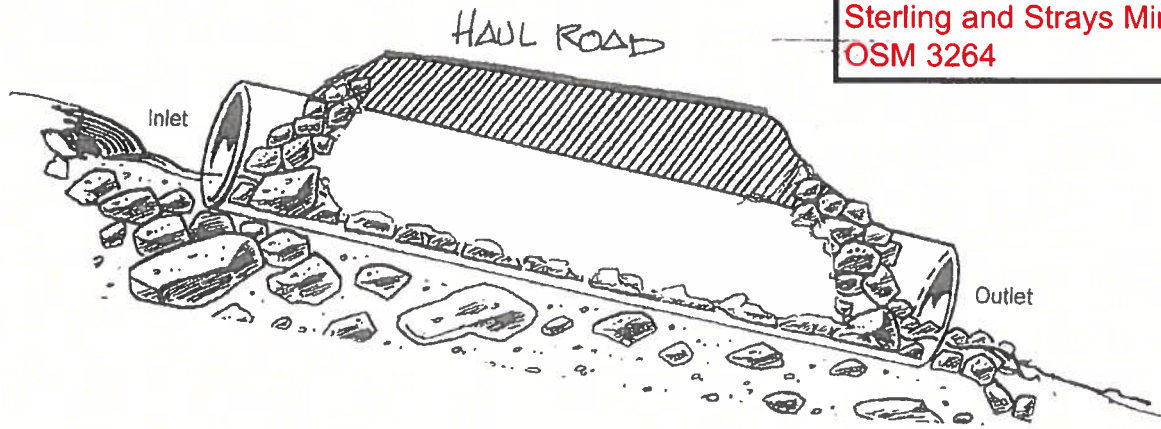
LRN 2009-00479
Appolo Fuels, Inc.
Sterling and Strays Mine #1
OSM 3264

Appolo Fuels, Inc.
Sterling and Strays Mine #1
OSM Permit #3264
Jurisdictional Waters

Scale: 1" = 2000'

Prepared By: **HOWARD**
Engineering and Geology, Inc.
1001 W. Main St., Suite 1000, Ft. Collins, CO 80501
Tel: 970.223.1122 www.howardeg.com

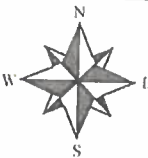




Typical closed bottom structures.

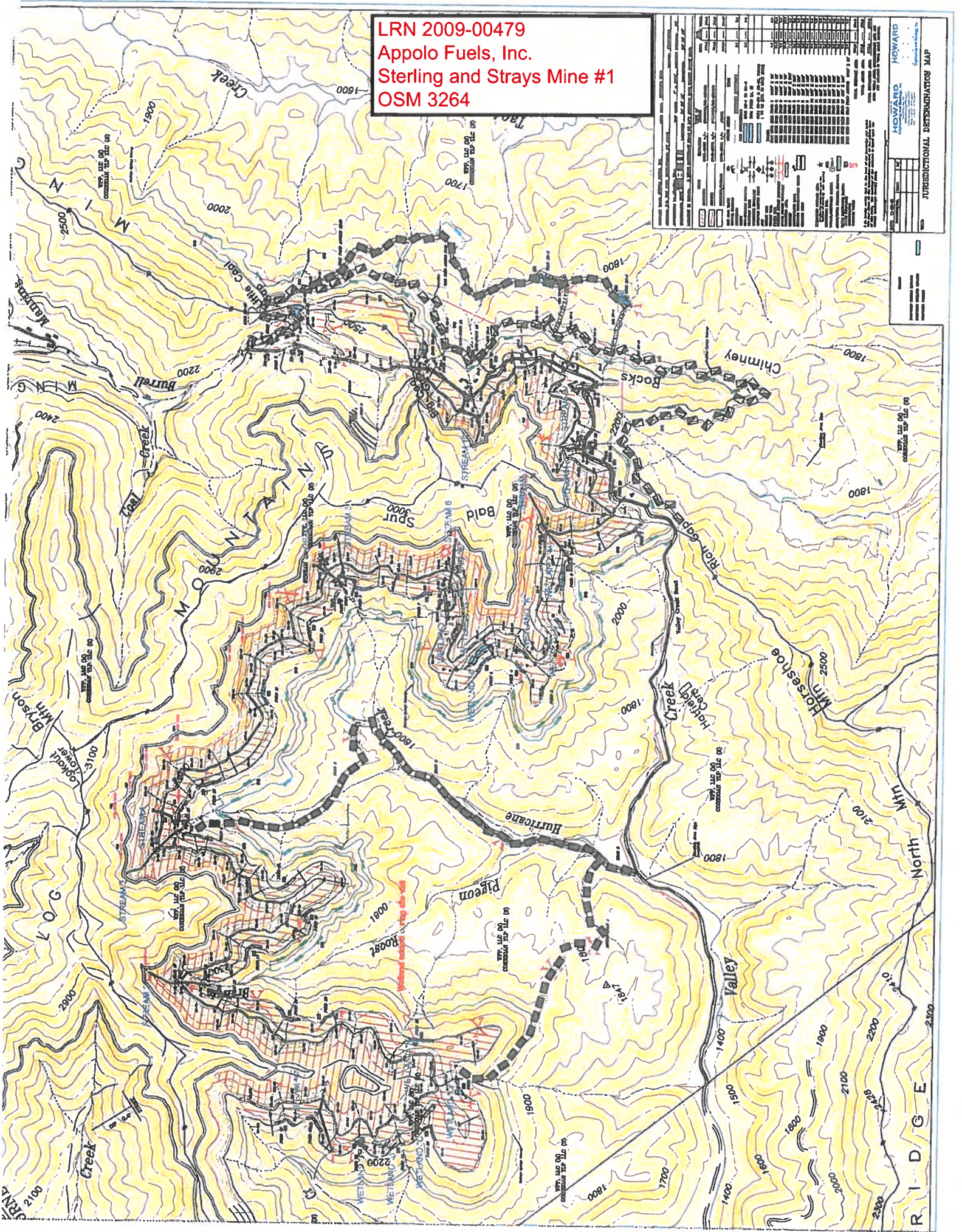
Note: Each culvert will be placed on the respective existing stream grade so that the ends will not be elevated above the streambed.

Typical drawing provided by the USACE.

Appolo Fuels, Inc.		
Sterling & Strays Mine #1 DA File #2009-00479 OSM Permit #3264 Typical Culvert Drawing		
	<p>Prepared By HOWARD Engineering and Geology, Inc.</p>	Scale: N/A
		Page No. 1 of 1

LRN 2009-00479
 Appolo Fuels, Inc.
 Sterling and Strays Mine #1
 OSM 3264

HOWARD	
JURISDICTIONAL DETERMINATION MAP	
DATE	10/12/09
PROJECT	STERLING AND STRAYS MINE #1
SCALE	AS SHOWN
<p>LEGEND</p> <p>BOUNDARIES</p> <p>Section Boundary (Dashed Line)</p> <p>County Boundary (Dotted Line)</p> <p>State Boundary (Long Dashed Line)</p> <p>TOPOGRAPHY</p> <p>Contour Interval: 20 Feet</p> <p>Spot Elevation (Circle with Number)</p> <p>WATER</p> <p>Stream (Blue Line)</p> <p>Creek (Blue Line)</p> <p>Water Body (Blue Area)</p> <p>ROADS</p> <p>Highway (Double Line)</p> <p>Road (Single Line)</p> <p>Trail (Dashed Line)</p> <p>UTILITIES</p> <p>Power Line (Line with Cross-Ticks)</p> <p>Gas Line (Line with Triangles)</p> <p>Water Line (Line with Squares)</p> <p>MINING</p> <p>Mine Shaft (Circle with Cross)</p> <p>Adit (Line with Triangles)</p> <p>Drift (Line with Squares)</p> <p>Open Pit (Hatched Area)</p> <p>Reclaimed Area (Cross-Hatched Area)</p> <p>Strip Mine (Hatched Area)</p> <p>OTHER</p> <p>Survey Point (Circle with Number)</p> <p>Well (Circle with Cross)</p> <p>Structure (Rectangle)</p>	



HOWARD
 JURISDICTIONAL DETERMINATION MAP

DATE: 10/12/09
 PROJECT: STERLING AND STRAYS MINE #1
 SCALE: AS SHOWN

LEGEND

BOUNDARIES

Section Boundary (Dashed Line)

County Boundary (Dotted Line)

State Boundary (Long Dashed Line)

TOPOGRAPHY

Contour Interval: 20 Feet

Spot Elevation (Circle with Number)

WATER

Stream (Blue Line)

Creek (Blue Line)

Water Body (Blue Area)

ROADS

Highway (Double Line)

Road (Single Line)

Trail (Dashed Line)

UTILITIES

Power Line (Line with Cross-Ticks)

Gas Line (Line with Triangles)

Water Line (Line with Squares)

MINING

Mine Shaft (Circle with Cross)

Adit (Line with Triangles)

Drift (Line with Squares)

Open Pit (Hatched Area)

Reclaimed Area (Cross-Hatched Area)

Strip Mine (Hatched Area)

OTHER

Survey Point (Circle with Number)

Well (Circle with Cross)

Structure (Rectangle)

DATE: 10/12/09
 PROJECT: STERLING AND STRAYS MINE #1
 SCALE: AS SHOWN

HOWARD
 JURISDICTIONAL DETERMINATION MAP

ATTENTION

YOU ARE REQUIRED TO SUBMIT THIS SIGNED
CERTIFICATION REGARDING THE COMPLETED ACTIVITY
AND ANY REQUIRED MITIGATION.

I hereby certify that the work authorized by Permit No. 2009-00479
and any required mitigation was done in accordance with the Corps
authorization, including any general or special conditions.

Permittee Signature

Date _____

Submit this signed certification to the office checked below:

Eastern Regulatory Field Office
Spring Cress Business Park
501 Adesa Blvd., Suite 250
Lenoir City, TN 37771

Spruce Lick Branch Mile 2.3, Tackett Creek Mile 13.8R, Clear Fork Mile 29.6R ABD
Tributaries to Valley Creek Mile 1.8R, Clear Fork Mile 36.6L; Cumberland River Mile 592.5L
Clairfield, Claiborne County, Tennessee (Sterling and Strays Mine #1; OSM 3264)



TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
DIVISION OF WATER RESOURCES
MINING SECTION
3711 MIDDLEBROOK PIKE
KNOXVILLE, TENNESSEE 37921-6538

July 24, 2014

Mr. Gary Asher, President
Appolo Fuels, Inc.
P.O. Box 1727
Middlesboro, KY 40965

Subject: Aquatic Resource Alteration Permit/§401 Water Quality Certification
State of Tennessee Application NR13MS.008

Dear Mr. Asher:

We have reviewed your application for the proposed stream restoration activities. Pursuant to §401 of the Federal Clean Water Act (33 U.S.C. 1341), the state of Tennessee is required to certify whether the activity described below will violate applicable water quality standards.

Subject to conformance with accepted plans, specifications and other information submitted in support of the referenced application, the state of Tennessee hereby issues certification for the proposed activity (enclosed). Failure to comply with the terms of this permit or other violations of the Tennessee Water Control Act of 1977 is subject to penalty in accordance with T.C.A. § 69-3-115.

It is the responsibility of the permittee to ensure that all contractors involved with this project have read and understood the permit conditions before the project begins.

Please be advised that a petition for permit appeal may be filed, pursuant to *T.C.A. Section 69-3-105, subsection (i)*, by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application.

Additionally, for those permits for which the Department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

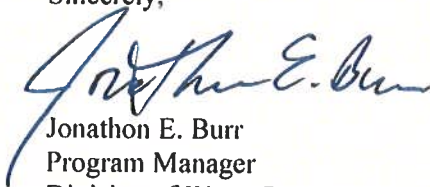
Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Board of Water Quality, Oil and Gas within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel. The mailing addresses follow:

Tisha Calabrese Benton
Acting Technical Secretary
Water Resources Board
6th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1534

Mr. E. Joseph Sanders
Chief Counsel
Office of General Counsel
21st Floor, L & C Tower
401 Church Street
Nashville, TN 37243-1534

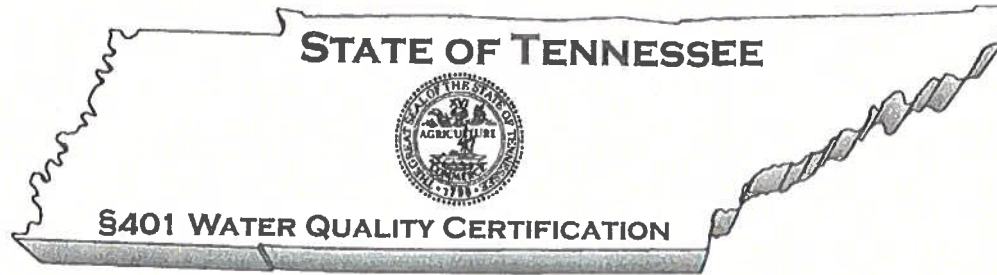
If you need any additional information or clarification, please contact Dave Turner at (865) 594-5541 or Dan Murray at (865) 594-5549.

Sincerely,



Jonathon E. Burr
Program Manager
Division of Water Resources
Mining Section

Cc: U.S. Army Corps of Engineers, Nashville District – E-mail
Bill Winters, OSM – E-mail
Ian Dye, OSM – E-mail
Dennis Lindbom, TWRA – E-mail
NPDES TN0069281, File copy



NR13MS.008

Pursuant to *The Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) and supporting regulations, a permit is required to alter the properties of waters of the state. Also, pursuant to §401 of *The Clean Water Act* (33 U.S.C. 1341), an applicant for a Federal license or permit which may result in a discharge into the waters of the U.S., shall provide the federal licensing or permitting agency a certification from the State in which the discharge will originate.

Accordingly, the Division of Water Resources requires reasonable assurance that the activity will not violate provisions of *The Tennessee Water Quality Control Act of 1977* (T.C.A. §69-3-101 et seq.) or provisions of §§301, 302, 303, 306 or 307 of *The Clean Water Act*.

Subject to conformance with accepted plans, specifications, and other information submitted in support of the application, the State of Tennessee hereby authorizes pursuant to 33 U.S.C. 1341 certifies and T.C.A. §69-3-101 et seq., the activity described below:

PERMITTEE Appolo Fuels Inc. – Sterling & Strays Surface Mine 1

AUTHORIZED WORK: 2.55 acres of jurisdictional wetland alterations and the installation of twenty-one road crossings on eleven headwater streams

LOCATION: Tributaries to the Clear Fork of the Cumberland River. The alterations are associated with NPDES Permit TN0069281, at N36.5333 latitude, W83.8333 longitude in Claiborne County

EFFECTIVE DATE: July 24, 2014

EXPIRATION DATE: July 24, 2019


Tisha Calabrese Benton

Director
Division of Water Resources

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PART I

Special Conditions:

- a. Sediment and erosion controls (Best Management Practices) shall be in place prior to commencing construction activities. BMPs must be maintained through the life of the permit. This activity shall be addressed in the annual monitoring report.
- b. Appolo shall notify the Division by e-mail at Dave.Turner@tn.gov within 24 hours of the failure of a crossing, ARAP structure or the corresponding BMPs such that a release of sediment to the stream occurs.

General Conditions:

- a. It is the responsibility of the applicant to convey all terms and conditions of this permit to all contractors. A copy of this permit, approved plans and any other documentation pertinent to the activities authorized by this permit shall be maintained on site at all times during periods of construction activity.
- b. Work shall not commence until the applicant has received the federal §404 permit from the U. S. Army Corps of Engineers, a §26a permit from the Tennessee Valley Authority or authorization under a Tennessee NPDES Storm Water Construction Permit where necessary. The applicant is responsible for obtaining these permits.
- c. The work shall be accomplished in conformance with the accepted plans, specifications, data and other information submitted in support of application and the limitations, requirements and conditions set forth herein.
- d. Streambeds shall not be used as transportation routes for construction equipment. Temporary stream crossings shall be limited to one point in the construction area and erosion prevention and sediment control (EPSC) measures shall be utilized where stream banks are disturbed.
- e. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state. All spills must be reported to the appropriate emergency management agency, and measures shall be taken immediately to prevent the pollution of waters of the state, including groundwater, should a spill occur.
- f. Temporary or permanent soil stabilization shall be accomplished after final grading or other earth work. Permanent stabilization with perennial vegetation or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Vegetative species must be on approved native species planting list, (*Landscaping with Natives*; http://www.tneppc.org/pages/landscaping#native_plants).
- g. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Rule 0400-40-03-.03 of the Rules of the Tennessee Department of Environment and Conservation. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of waters of the state for any of the uses designated by Rule 0400-40-04. These uses include fish and aquatic life (including trout streams and naturally reproducing trout streams), livestock watering and wildlife, recreation, irrigation, industrial water supply, domestic water supply, and navigation.

- h. Impacts to waters of the state other than those specifically addressed in the plans and this permit are prohibited. All streams, springs and wetlands shall be fully protected prior, during and after construction until the area is stabilized. Any questions, problems or concerns that arise regarding any stream, spring or wetland either before or during construction, shall be addressed to the Division of Water Resources Knoxville Environmental Field Office (865-594-6035), or the ARAP permit coordinator in the Division's Mining Section (865-594-5541).
- i. Adverse impact to formally listed state or federal threatened or endangered species or their critical habitat is prohibited.
- j. This permit does not authorize adverse impacts to cultural, historical or archeological features or sites.

PART II

Mitigation Requirements and Monitoring Procedures

Required Mitigation Activities

- Wetland mitigation shall consist of the purchase 2.5 credits in the Tennessee Mitigation Fund in the Upper Cumberland (HUC 05130101) hydrologic unit. Credits must be purchased prior to the alteration of any wetland features within the permit area. No additional monitoring by Appolo Fuels Inc. (Appolo) is required for the banked wetlands. A copy of the purchase agreement is retained in the Division's permit file.
- Road drainage in the vicinity of the road crossings shall be directed to sumps on both sides of each crossing as indicated on the approved mine operations map provided with the OSMRE permit.
- Road crossings shall be removed when the site is backfilled, graded and no longer used for coal haulage. Vegetative cover must be established on the reclaimed areas adjacent to streams and wet weather conveyances. Haulroad ditches must be breached such that concentrated flow is diverted away from each removed crossing and the adjacent sumps.
- The stream must be reconstructed to a stable channel that emulates the dimensions of the upstream channel. Culverts must be removed or collapsed and sealed such that the flow in the restored stream channel is not impeded.
- Planting of native trees or shrubs is required within the 50 foot riparian buffer zones on both banks of each reconstructed stream reach. At least three species must be planted within the riparian zones and no one species shall comprise more than one third of the total tree/shrubs planted. Access with motorized vehicles must be restricted once crossings are removed

Required Monitoring Activities

- Appolo shall inspect each crossing and corresponding sumps weekly and after each significant precipitation event. Each sump must be cleaned out when sediment has filled one half the sump's volume. Sediment from sumps must be removed from the vicinity of the road crossing, placed on mine back fill area, seeded and mulched. Appolo shall document the findings of each inspection and corresponding maintenance in a bound log book or on a spreadsheet. A copy of the inspection and maintenance log shall be provided annually to the Division.
- Apollo shall provide an as-built longitudinal and cross section profiles for each restored stream reach within 30 days of culvert removal.

- Each restored stream reach shall be inspected and a Hydrologic Determination Field Data Sheet, V. 1.4 completed annually until the reach achieves a primary indicator that the feature is a stream or attains a secondary stream indicator score ≥ 19 .
- An annual tree and shrub survey must be completed for each restored stream reach of the stream side (riparian) species planted. Riparian vegetation must attain a 75% survival rate.

Recording of Results

Appolo shall provide the Division with an annual narrative description of each road crossing installed. Appolo shall record the following information:

1. The exact place and date of each crossing's installation or sump cleanout.
2. Annual narrative descriptions and photo-documentation of each crossing's condition.
3. The exact place and date of each crossing's removal and the subsequent stream restoration. Include the as-built longitudinal and cross section profiles.
4. Annual narrative descriptions, habitat assessment form and photo-documentation of each restored stream reach.

Submission of Monitoring Results

- a. The permittee shall submit monitoring information on the removed crossings annually, for a term of five years (5 years) or until the Division determines that the restored channels have developed stream characteristics and are stable.
- b. All monitoring reports and information shall be submitted in report-form to the Division of Water Resources, Mining Section, 3711 Middlebrook Pike, Knoxville, Tennessee 37921. Copies shall also be provided to the Office of Surface Mining, 710 Locust Street, 2nd Floor, Knoxville, TN 37902, and the U.S. Army Corps of Engineers-Nashville District Office, located at 3701 Bell Road, Nashville, Tennessee 37214.
- c. The monitoring reports shall be due by July 31, of each monitoring year.

Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of five (5) years, or longer, if requested by the Division of Water Resources.

Falsifying Results and/or Reports

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in Section 69-3-115 of the Tennessee Water Quality Control Act.

PART III

Duty to Reapply

Permittee is not authorized to conduct alterations after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information

and forms as are required to the Director of Water Resources. Such applications must be properly signed and certified.

Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

Other Information

If the permittee becomes aware that he/she failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he/she shall promptly submit such facts or information.

Changes Affecting the Permit

Transfer/Change of Ownership

- a. This permit may be transferred to another party, provided there are no activity or project modifications, no pending enforcement actions, or any other changes which might affect the permit conditions contained in the permit, by the permittee if:
- b. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;
- c. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and contractual liability between them; and
- d. The Director does not notify the current permittee and the new permittee, within 30 days, of his intent to modify, revoke, reissue, or terminate the permit, or require that a new application be filed rather than agreeing to the transfer of the permit.
- e. The permittee must provide the following information to the division in their formal notice of intent to transfer ownership:
 5. the permit number of the subject permit;
 6. the effective date of the proposed transfer;
 7. the name and address of the transferor;
 8. the name and address of the transferee;
 9. the names of the responsible parties for both the transferor and transferee;
 10. a statement that the transferee assumes responsibility for the subject permit;
 11. a statement that the transferor relinquishes responsibility for the subject permit;
 12. the signatures of the responsible parties for both the transferor and transferee, and;
 13. a statement regarding any proposed modifications to the permitted activities or project, its operations, or any other changes which might affect the permit conditions contained in the permit.

Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

Liabilities**Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of pollutants to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its activities in a manner such that public or private nuisances or health hazards will not be created.

Liability under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or the Federal Water Pollution Control Act, as amended.

This permit does not preclude requirements of other federal, state or local laws. This permit also serves as a State of Tennessee Aquatic Resource Alteration Permit (ARAP) pursuant to the Tennessee Water Quality Control Act of 1977 (T.C.A. §69-3-101 et seq.).

The State of Tennessee may modify, suspend or revoke this permit or seek modification or revocation should the state determine that the activity results in more than an insignificant violation of applicable water quality standards or violation of the act. Failure to comply with permit terms may result in penalty in accordance with T.C.A. §69-3-115.



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
3711 MIDDLEBROOK PIKE
KNOXVILLE, TENNESSEE 37921-6538
PHONE (865) 594-6035 STATEWIDE 1-888-091-8332 FAX (865) 594-6105

August 18, 2014

Mr. Gary Asher, President
Appolo Fuels, Inc.
P.O. Box 1727
Middlesboro, Kentucky 40965

RE: Transmittal of NPDES Permit
Appolo Fuels, Inc.
Sterling and Strays Surface Mine 1
NPDES Permit TN0069281
SMCRA Permit 3264
Claiborne County

Dear Mr. Asher:

In accordance with the provisions of *The Tennessee Water Quality Control Act (Tennessee Code Annotated, Sections 69-3-101 et seq.)* and regulations of the Tennessee Division of Water Resources the enclosed permit is hereby issued. The continuance and/or reissuance of this permit are contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to *T.C.A. Section 69-3-105, subsection (i)*, by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application.

Additionally, for those permits for which the Department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

Mr. Gary Asher, President
Appolo Fuels, Inc.
NPDES Permit TN0069281
Page 2

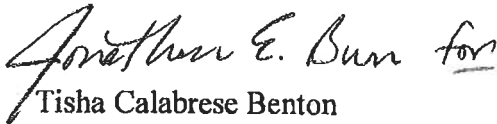
Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Board of Water Quality, Oil and Gas within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel. The mailing addresses follow:

Tisha Calabrese Benton
Acting Technical Secretary
Board of Water Quality, Oil and Gas
William R. Snodgrass TN Tower
312 Rosa L. Parks Avenue, 12th Fl
Nashville, TN 37243-1102

Mr. E. Joseph Sanders-Chief Counsel
Office of General Counsel
William R. Snodgrass TN Tower
312 Rosa L. Parks Avenue, 2nd Fl
Nashville, TN 37243-1102

If you have any questions concerning this correspondence, contact Gary Mullins at (865) 594-5536.

Sincerely,



Tisha Calabrese Benton
Director
Division of Water Resources

TCB:JEB:GWM:DAT

Enclosures

cc: NPDES Permit File

Email: Mr. Kip Tyler, U.S. EPA Region IV
Mr. Bill Winters, OSM

STATE OF TENNESSEE



NPDES PERMIT

NPDES Permit TN0069281

New

SMCRA Permit 3264

Authorization to discharge under the
National Pollutant Discharge Elimination System

Issued By

**Tennessee Department of Environment and Conservation
Division of Water Resources
3711 Middlebrook Pike
Knoxville, Tennessee 37921-6538**

Under authority of the *Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.)* and the delegation of authority from the United States Environmental Protection Agency under the *Federal Water Pollution Control Act*, as amended by the *Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)*

Discharger: **Appolo Fuels, Inc.**
Sterling and Strays Surface Mine 1

is authorized to discharge treated wastewater and storm water:

from a facility located in **Caliborne** County at latitude **36°31'18"**, longitude **83°50'48"**

consisting of **807.2 acres**

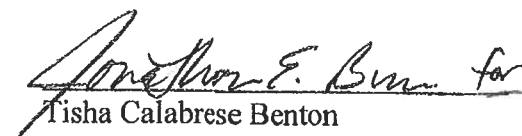
to receiving waters named: **(See attachment)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on: **August 18, 2014**

This permit shall expire on: **August 17, 2019**

Issuance date: **August 18, 2014**


Tisha Calabrese Benton
Director
Division of Water Resources

Title Page Attachment

Receiving Streams with related outfalls

Appolo Fuels, Inc.
Sterling and Strays Surface Mine 1
NPDES Permit TN0069281

- Unnamed tributary to Burrell Creek -- Outfall S20
- Unnamed tributaries to Valley Creek -- Outfalls B01, B02, B03 and B21
- Unnamed tributaries to Hurricane Creek -- Outfalls B04, B05, B06, B07, B08, B09, B10, B11, B12, B13 and B14
- Unnamed tributaries to Pigeon Roost Branch – B15, B16, B17, B18, B19 and B20
- Unnamed tributaries to Bear Creek – B22, B23, B24, B25, B26 and B27
- Unnamed tributaries to Spruce Lick Branch – B28, B29 and B30
- Unnamed tributaries to Tackett Creek -- Outfalls S01, S1A, S1B, S02 and S21

NPDES PERMIT REQUIREMENTS OUTLINE

1. Wastewater Discharge (X – Required action)

Outfall	Sample	pH	SS	Flow	TSS	Specific Conductance	Sulfates	Total Fe	Total Mn	Report
ALL	2/month	X	X	X	X	X	X	X	X	1/qtr.

2. Special Condition Analysis

Outfall	Sample Time	Analyses	Report	Frequency
ALL	Six months of operation	See PART I, A. 1. c)(iii)	Item V of EPA Form 2C Laboratory Analysis	Once
ANY	If and when AMP is triggered.	See PART I, A. 1. b)(iii)	Laboratory Analysis	As needed

3. TMDL Compliance

Outfall	Sample	Flow	MGD	TSS	Total lbs./day	# of Days	Total lbs./qtr.	Report
ALL		X	X	X	X	X	X	1/qtr.

4. Surface Water Monitoring

SWIM Point	Sample	SMCRA Parameters	Report
ALL	1/qtr.	X	1/qtr.

5. Biological Assessment

Station ID	Sample	QSSOP (See PART I, C.)	Report
CLEAR035.6CL	1/year	X	1/year
CLEAR037.3CL	1/year	X	1/year
VALLE000.1CL	1/year	X	1/year
VALLE002.3CL	1/year	X	1/year
VALLE003.4CL	1/year	X	1/year
PROOS000.2CL	1/year	X	1/year
HURRI000.4CL	1/year	X	1/year
SLICK001.8CL	1/year	X	1/year
TACKE014.6CL	1/year	X	1/year
TACKE015.5CL	1/year	X	1/year
BENNE005.2CL	1/year	X	1/year

6. Blackside Dace Survey

Survey	Sample	Report
Spruce Lick Branch	See Part 1. D	To Division/-TWRA-/OSM-USFWS

7. Adaptive Management Plan

Outfall	Activation	Action	Report	When
ANY	Specific Conductance ≥500 µS/cm	Notify Division	Exceedence	Within 48 hours
		Implement AMP	See PART I, E.	

PART I

A. WASTEWATER LIMITATIONS AND MONITORING REQUIREMENTS
(Surface Mine-Non-Controlled Drainage)

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge treated wastewater from all point sources associated with the mining and related facilities indicated on the approved area maps. This permit covers mine wastewater discharges originating from gravity flow drainage and surface runoff from precipitation events.

Such wastewater shall be limited and monitored by the permittee as specified below.

a) Wastewater Limitations and Monitoring Requirements

WASTEWATER LIMITATIONS AND MONITORING REQUIREMENTS¹				
ALL OUTFALLS				
Wastewater Characteristics	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Maximum for any 1 Day	Measurement Frequency	Sample Type
Total Iron	3.0 mg/l	6.0 mg/l	Two per Month	Grab
Total Manganese	2.0 mg/l	4.0 mg/l	Two per Month	Grab
Total Suspended Solids ²	35.0 mg/l	70.0 mg/l	Two per Month	Grab
Settleable Solids ³	N/A	0.5 ml/l	Two per Month	Grab
Specific Conductance (µS/cm)	Report	Report	Two per Month	Measure
Sulfates (mg/l)	Report	Report	Two per Month	Grab
Flow (gpm) ⁴	Report	Report	Two per Month	Measure
pH ⁵	6.0 to 9.0 Standard Units at all times		Two per Month	Measure

¹ The permittee may request a Post-Mining Areas NPDES permit that requires less monitoring. See *CFR Part 434, Subpart E-Post Mining Areas*. Appropriate information including a letter of request and documentation of the facility's reclamation status must be submitted to the Division of Water Resources, Mining Section (Division). This can be proof of a Phase I bond release or an inspection report confirming the facility's status prepared by the Office of Surface Mining inspector. An NPDES permit must remain active until Phase III bond release. (Refer to Part III, Section B.)

² Total Maximum Daily Load (TMDL) Compliance

The discharge of any pollutant(s) from this facility that enters into a water body with an existing and approved Total Maximum Daily Load (TMDL) must comply with the TMDL and any applicable TMDL implementation plan.

This permit requires Appolo to submit a quarterly TMDL Compliance Report will be sent to the permittee as an excel file, *TMDL Compliance Report.xls*. This report must include the following information for each outfall discharging to the TMDL watershed:

Outfall values for each event

- Flow as gallons per minute (gpm) & million gallons day (MGD)
- Discharge TSS mg/l
- Number of days of discharge event
- Calculated total TSS load value for each event

Facility values (includes all outfalls in TMDL)

- Total quarterly TSS load discharged
- Running total TSS annual load

Until such time as all outfalls are constructed and operational, each outfall point must comply with the WLA target load of 276.1 lbs of sediment as TSS per acre per year.

- ³ The Division has included a Settleable Solids (SS) effluent limitation of 0.5 ml/l. This standard is based on Best Professional Judgment (BPJ) of the Division.

EPA studies and other research data indicate that the 0.5 ml/l limit for SS is achievable and is an effective and appropriate measure of sediment control both for active mines during precipitation events and for reclamation areas. See EPA "Development Document for Final Effluent Limitations Guidelines and New Source Performance Standards for the Coal Mining Point Source Category" Effluent Guidelines Division, Office of Water, U. S. Environmental Protection Agency, EPA 440/1-82/057, Washington D. C., October, 1982.

- ⁴ Flow measurements are used to determine the volume or quantity of wastewater that is discharged from each outfall. See 40 CFR 122. Measurement of flow volume provides operating and performance data on the wastewater treatment system, helps in evaluating impacts on the receiving stream, and provides data to determine long term trends in treatment capacity and effectiveness.

- ⁵ When there is no discharge, monitoring of pH is to be made within the wastewater treatment structure. Sample results and place of monitoring should be noted on the DMR.

NOTE: *Rules of Tennessee Department of Environment and Conservation, Chapter 1200-04-03-.03, General Water Quality Criteria* establishes criteria for uses of state waters. To protect and maintain the classified use of the receiving stream for fish and aquatic life, the pH value shall not fluctuate more than 1.0 unit over a period of 24 hours and shall not be outside the following ranges: 6.0 – 9.0 in wadeable streams and 6.5 – 9.0 in larger rivers, lakes, reservoirs, and wetlands.

b) Alternate Storm Limitations for Precipitation Events

Alternate storm limitations, as described in 40 CFR 434.63 and in *Appendix A of 40 CFR Part 434* may apply to outfalls in this permit for different precipitation events. **PLEASE NOTE:** The permittee must monitor all of the wastewater parameters listed in Part 1, A.1.a) of their NPDES permit regardless of the precipitation event. Monitoring data for each parameter must be asterisked on the DMR when applying the alternate storm limits.

If the mine operator is pumping mine wastewater to any treatment structure, the Alternate Storm Limitations would not apply for the discharges associated with pumping unless the discharge was a result of a 10-year/24-hour or greater precipitation event.

The following table indicates the alternate storm limits that will apply to discharges for various precipitation events:

Outfall	No Precipitation	Precipitation Event	1yr/24hr Event	2yr/24hr Event	10yr/24hr Event
All Outfalls	SS, TSS, Fe, Mn, pH	SS, Fe, pH	SS, Fe, pH	SS, pH	pH

In order to claim the alternate storm exemptions, the permittee must do the following:

- 1) Notify the Division within 24-hours of knowledge of the limit exceedence.
- 2) Provide documentation that the discharge or increase in discharge was a result of a precipitation event of a certain magnitude. This can be in the form of one or more of the following:
 - precipitation data
 - weir flow measurements
 - dated photographs
 - or equivalent proof of record

The information in item two must be submitted with the DMRs.

c) Special Condition Analysis Requirements

Within six months of operation of each treatment structure, you are required to complete and submit Item V of NPDES application Form 2C. The outfall sample must be representative of the water quality of the treatment structure discharge. (e.g. In the case of an underground mine, the sample would include mine works drainage.) You do not have to complete portions of Item V requiring tests that you have already conducted and reported under the discharge monitoring requirements of your NPDES permit. See *40 CFR Part 122.21(k)(5)(vi)*.

- (i) *EPA Form 2C, Part V. A.* and *40 CFR Part 122.21(k)(5)(i)* requires that you sample and analyze at least once for the parameters: Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Organic Carbon (TOC), Ammonia, and Temperature. (See Note)

Note: The permittee may request a waiver from testing and reporting of these parameters. They do not provide information essential to NPDES permit issuance. See *40 CFR Part 122.21(k)(5)(i)*.

- (ii) *EPA Form 2C, Part V. B.* and *40 CFR Part 122.21 (k)(5)(ii)* requires that you mark believed present or believed absent in your wastewater discharge for all parameters in *Appendix D to Part 122, Table IV*. If believed present, the parameter must be analyzed and the results reported. Iron and manganese must be marked present, wastewater analyzed and results reported.

(iii) *EPA Form 2C, Part V. C. Metals, Cyanide, and Total Phenols and 40 CFR Part 122.21 (k)(5)(iii)(A)* requires that you test and report analysis for the listed parameters in *Appendix D to Part 122, Table III*.

Antimony	Nickel	Copper
Arsenic	Selenium	Lead
Beryllium	Silver	Mercury
Cadmium	Thallium	Cyanide
Chromium	Zinc	Phenols, Total

(iv) Coal mining facilities are exempt from testing the list of organic compounds found in *Form 2C and Appendix D to Part 122, Table II*. See *40 CFR Part 122.21 (k)(5)(iii)(B)*.

If a review of your submitted data indicates a need to add or change permit effluent limitations or permit conditions to protect the classified uses of the receiving stream(s), your permit will be modified, revoked and re-issued or both to accomplish those changes. See *40 CFR 122.62*.

2. There shall be no distinctly visible floating scum, oil, or other matter contained in the wastewater either in the discharge or within the treatment structure. The wastewater discharge must not cause an objectionable color contrast in the receiving stream.
3. The wastewater discharge shall result in no other materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.
4. Sludge or any other material removed by any treatment works shall be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material shall be in compliance with the *Tennessee Solid Waste Disposal Act, TCA 68-211-101, et seq.* and the *Tennessee Hazardous Waste Management Act, TCA 68-212-101, et seq.*
5. Batch, Siphon, or Pump Discharges

Batch, siphon, or pump discharge(s) of any treated mine wastewater from approved treatment structures shall comply with effluent standards set forth herein and shall be directed to a splash pad or the pond's spillway constructed of non-erosive material. These discharge(s) shall be sampled according to the following monitoring schedule:

- a) A minimum of two (2) samples shall be collected. One sample shall be collected within one (1) hour from the beginning of the discharge and the second sample shall be taken within one (1) hour prior to cessation of the discharge.
- b) Each batch, siphon, or pump discharge lasting more than four (4) hours shall be sampled once in addition to the schedule established in 7 (a) above. The additional sample shall be taken midway of the total time of discharge.
- c) Duration of the discharge shall be noted on the DMR.
- d) Discharges lasting more than twenty-four hours shall be considered as a separate discharge monitoring cycle. Monitoring procedures stipulated above shall be reinstated.

Data from the sampled discharge shall be submitted with the DMR along with any other discharge data collected for the monitoring period. This data may be submitted in lieu of data from the next scheduled sampling day of the month. Siphon or pumpage of water from wastewater treatment structures is a prohibited bypass if the sampling procedures as stated herein (Part I) are not followed.

6. Gravity Discharges from Wastewater Treatment Systems and/or Facilities

Representative samples shall be taken according to the following established sampling frequencies unless otherwise approved by the Division subsequent to a specific written request by the permittee:

- a) One sample of the first discharge during the first half of the month and
- b) One sample of the first discharge during the second half of the month.

B. SURFACE WATER MONITORING REQUIREMENTS

Appolo must conduct Surface Water Information Monitoring (SWIM) shall be identical to the monitoring required in the SMCRA plan approved by the federal Office of Surface Mining (OSM).

SWIM Point	Latitude	Longitude	Stream
SW-3/R	36.5357	83.8172	Tackett Creek
SW-4/R	36.5316	83.8222	Tackett Creek
SW-5/R	36.5246	83.8299	Tackett Creek
SWIM-7R	36.5381	83.8365	Spruce Lick Branch
SW-8/R	36.5362	83.8442	Spruce Lick Branch
SW-13/R	36.5495	83.8412	Hurricane Creek
SWIM-14R	36.5676	83.8431	UT Hurricane Creek
SWIM-15/R	36.5558	83.8503	Hurricane Creek
SW-23/R	36.5544	83.8518	UT Hurricane Creek
SWIM-17/R	36.5582	83.8562	Pigeon Roost Branch
SWIM-18R	36.5727	83.8629	Bear Creek
SW-19/R	36.5702	83.8714	Bear Creek
SW-26/R	36.5676	83.8663	UT Bear Creek
SWIM-10/R	36.541	83.8491	Valley Creek
SW-11/R	36.5521	83.873	Valley Creek
SW-21/R	36.5408	83.849	Valley Creek
SW-22/R	36.5468	83.8576	Valley Creek
SW-24/R	36.5641	83.8661	UT Valley Creek
SW-25/R	36.5599	83.8697	UT Valley Creek
SW-27-R	36.5553	83.8212	Burrell Creek

C. BIOLOGICAL ASSESSMENT REQUIREMENTS

Appolo implemented a Comprehensive Biological Monitoring Program (CBMP) within the Clear Fork of the Cumberland River watershed. Appolo must continue to collect following the below procedures annually during the spring sampling period and within thirty days of the previous year's sample date (typically in March). These surveys must utilize the most current revised edition of the Department's QSSOP for Macroinvertebrate Stream Surveys. Semi-quantitative riffle kicks are to be collected for each sample stream reach.

CBMP reports are reviewed by the Division staff for compliance with the Department's *Quality System Standard Operating Procedure (QSSOP) for Macroinvertebrate Stream Surveys* (Most current revised edition.). The Division will use biological monitoring in eleven CBMP stream to evaluate the compliance with narrative WQS for the Sterling and Strays Surface Mine 1.

The bio-assessment sample reaches are listed as follows:

MACROINVERTEBRATE STREAM SURVEY LOCATIONS			
Station ID	Latitude	Longitude	
CLEAR035.6CL	36.5643	-83.9347	U/S Nolan Branch
CLEAR037.3CL	36.5714	-83.9111	U/S Valley Cr. Road bridge
VALLE000.1CL	36.57018	-83.91118	D/S Bostica Cemetery Road bridge
VALLE002.3CL	36.55623	-83.8804	U/S BEAR CREEK
VALLE003.4CL	36.5500	-83.8612	100' U/S HURRICANE CREEK
PROOS000.2CL	36.5552	-83.8565	100' U/S 3112 MINE AREA
HURRI000.4CL	36.5557	-83.8512	100' U/S 3112 MINE AREA
SLICK001.8CL	36.5321	-83.8524	100' U/S MASON MINING
TACKE014.6CL	36.5243	-83.8299	U/S SPRUCE LICK BRANCH
TACKE015.5CL	36.5427	-83.8077	U/S OF 3191 MINE DRAINAGE
BENNE005.2CL	36.5821	-83.7837	D/S OF WATSON BRANCH

Results from the CMBP must be submitted to the Division by no more than 120 days after the sampling date.

D. SPECIAL FISH SURVEY REQUIREMENTS

Appolo must conduct annual Blackside dace surveys in association with the Sterling and Strays Surface Mine 1 in Spruce Lick Branch within the stream segment upstream of the Consol Impoundment and will extend to the Mason Coal Seam Bench elevation. Prior to conducting the Blackside dace survey, Appolo or its agent must have appropriate state and federal collection permits. The survey time frame may be dictated by TWRA or USFWS. The fish survey results must include all fish species collected and photographs of any Blackside dace. This information must be submitted to the Division, TWRA, OSM and USFWS within thirty days of completion date.

E. ADAPTIVE MANAGEMENT PLAN 40 CFR §122.44(K).

This permit will require the implementation of an Adaptive Management Plan (AMP) of mine wastewater effluents to streams for assessment of compliance with the numeric and narrative Water Quality Standards during mining and reclamation. Specific conductance will be used as a trigger for the AMP implementation for all outfalls.

The Division has chosen specific conductance $\geq 500 \mu\text{S}/\text{cm}$ as the trigger for the AMP process. Appolo will implement the AMP process for any outfall(s) when the specific conductance of the effluent(s) is $\geq 500 \mu\text{S}/\text{cm}$.

First, Appolo must notify the current Mining Section Manager Jonathon Burr at (865) 594-5520 or e-mail at Jonathon.burr@tn.gov within 48 hours of knowledge of any outfall discharge that exceeds the trigger. Second, Appolo must monitor daily for specific conductance, pH, and flow at the affected outfall and the appropriate surface water monitoring point(s) in the receiving stream.

The AMP will include the following items:

- 1) If this discharge condition persists for thirty calendar days, then Appolo must collect a sample for special conditions analysis of the parameters listed in Part X, D(iii) and submit the analysis to the Division.
- 2) Within thirty days, Appolo must develop an appropriate plan /Best Management Practices (BMPs) in order reduce specific conductance and to control any effluent parameter from each outfall that exceeds numeric or narrative WQS. Upon Division approval, Appolo will implement this specific plan.
- 3) When an outfall(s) effluent has an average specific conductance of $\geq 500 \mu\text{S}/\text{cm}$ for thirty days (two monitoring periods) then Appolo must conduct a 48-hour static non-renewal Whole Effluent Toxicity Test (WETT), to be conducted within 30 days of the 2nd monitoring period. If more than two outfalls are involved then the WETT test must be conducted within sixty days. These samples must be collected from the pipe as effluent.
- 4) Static non-renewal tests must follow EPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, October 2002. Testing must include *Pimphales promelas* (fathead minnow) and *Ceriodaphnia dubia* (daphnid).
- 5) All WETT's will use a standard dilution series that brackets the receiving water concentration (RWC):

100%	50%	25%	12.5%	6.25%	Control
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(e.g. If the stream flow is 100gpm/0.22cfs at the discharge, and the effluent discharges at 10gpm/0.022cfs, then RWC is 10%. The concentration is bracketed by the 6.25% and 12.5% test dilutions.) When the receiving stream exhibits no surface flow upstream of the confluence with the discharge then 100% effluent will be considered the RWC. The RWC must be provided with all WETT results.

- 6) Tests using a reference toxicant must be run concurrently with the effluent tests. The results of this testing must be provided with the WETT results.
- 7) When a 48-hour Static non-renewal (Definitive) WETT is conducted, the receiving water concentration (RWC) must be less than the LC50 (lethal concentration) of the effluent tested (e.g. For permit compliance, if the test LC50 for the effluent is 10% then the RWC must be less than 10% effluent). When the receiving stream exhibits no surface flow upstream of the discharge, the LC50 must demonstrate No Acute Toxicity (NAT) in 100% effluent.

If the Static non-renewal tests results in a lethal concentration (LC^{50}) that is $\leq 100\%$ effluent, then a re-test must be conducted within two weeks of obtaining the test results. The re-test will use a dilution series based on the receiving water concentration (RWC) when deemed appropriate by the Division.

100%	(RWC+100)/2	RWC	RWC/2	RWC/4	Control
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If it is determined that the discharge meets the criteria for a continuous discharge as defined in paragraph 8.3.4.1 of the *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October 2002, then a chronic WETT may be required for the re-test.

- 8) When a Chronic WETT is conducted, the receiving water concentration (RWC) must be less than the IC^{25} (inhibition concentration) of the effluent tested (e.g. For permit compliance, if the test IC^{25} for the effluent is 10% then the RWC must be less than 10% effluent). When the receiving stream exhibits no surface flow upstream of the discharge, the No Observed Adverse Effect Concentration, NOAEC, is 100% effluent.
- 9) If Appolo fails the WETT then it must conduct a Toxicity Identification Evaluation (TIE) and Toxicity Reduction Evaluation (TRE). Within 90 days of completing the TIE/TRE Appolo must submit a treatment strategy to the Division to eliminate toxicity from the effluent.
- 10) When a Chronic WETT re-test results demonstrate an IC^{25} equal to greater than the receiving stream concentration of the effluent or the LC^{50} is $\leq 100\%$ effluent, then Appolo must identify the source(s) of the toxicity. Appolo must also submit a treatment strategy to the Division to reduce and control the pollution source(s) within 30 days.
- 11) A WETT must be conducted twice a year on the outfall effluent until the Division determines the treatment strategy has brought the site into compliance with narrative and numeric Water Quality Standards.
- 12) The Division may authorize the return to regular outfall monitoring (twice per month) and permit limits if all available data indicates that the discharge meets permit effluent limitations, special condition analysis demonstrates no reasonable potential, or the specific conductance continues to measure less than 500 $\mu S/cm$, and WETT demonstrates no toxicity.

- 13) The AMP may be re-implemented for any outfall that fails to maintain a specific conductance of more than 500 $\mu\text{S}/\text{cm}$ after returning to regular outfall monitoring.

F. STORM WATER REPORTING LEVELS AND MONITORING REQUIREMENTS

Storm water discharges associated with access and haul roads and other discharges composed entirely of storm water that are not treated in the mine wastewater system shall be monitored by the permittee as specified below until the site has been closed and stabilized according to plans approved by the Division. Additionally, conditions stipulated in Part III B., Termination of Monitoring, shall be met.

Note: This section is not applicable if all storm water discharges associated with access and haul roads and/or other areas of the permit requiring storm water coverage are routed to and adequately treated by approved wastewater treatment structures. Sufficient documentation (i.e. narrative, drainage maps, etc.) of such treatment shall be provided to the Division before this exemption is valid.

STORM WATER DISCHARGES*				
<u>Parameters</u>	<u>Reporting Levels</u>	<u>Monitoring Requirements</u>		
		<u>Measurement Frequency</u>	<u>Sample Type</u>	
pH	5.0 to 9.0 Standard Units at all times	Annually		Measure
Total Suspended Solids	150 mg/L	Annually		Grab
Oil and Grease	15 mg/L	Annually		Grab
<p>*Note: Applies only if all access and haul road drainage is not being routed to approved treatment structures. If the storm water discharge is from an area not associated with an access road or haul road or is not a source for vehicular traffic, monitoring for Oil and Grease is not required.</p>				

1. Samples shall be collected from discharges resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least seventy-two (72) hours after any previous storm event of 0.1 inch or greater.
2. Grab samples shall be collected as soon as practicable during a storm event discharge.
3. In addition to the information contained in Part I, Section H 3., the monitoring report form shall include:
 - a) The exact location from which the sample was taken, i.e., culvert, sump, etc.
 - b) The duration (in hours), starting and ending times, and magnitude (in inches) of the storm event sampled.

G. GROUNDWATER MONITORING REQUIREMENTS

If required, groundwater monitoring shall be consistent with the monitoring requirements of the SMCRA plan that was approved by OSM.

H. WASTEWATER TREATMENT FACILITIES CONSTRUCTION SCHEDULE

1. Full compliance and operational levels shall be attained from the effective date of this permit.
2. All pollution control equipment required to meet the conditions of this permit shall be installed, be in operational condition, and shall be "started-up" prior to discharge.
3. Prior to receiving drainage from disturbance of the permitted mine area, wastewater treatment structures and/or treatment facilities shall be constructed according to approved plans and certified after construction by a Tennessee Registered Professional Engineer or an authorized responsible representative of the company. Such certifications shall be submitted to and approved by the Division.

I REPORTING

1. Monitoring Results

Monitoring results shall be recorded on DMR forms supplied by the Division. Applicable reporting frequencies follow:

a) Wastewater Discharges

- (1) DMRs shall continue as set by the previous permit schedule that recorded monthly and submitted quarterly.

The first DMR is due on **October 15, 2014**.

- (2) Each subsequent DMR shall be due no later than fifteen (15) days after completion of each quarterly reporting period.
- (3) DMRs shall be submitted for each outfall number listed on the permit. If a wastewater treatment structure(s) listed on the permit has not been constructed, this shall be noted on the DMR as "not constructed."

b) Storm Water Discharges

DMRs shall be recorded and submitted annually. The first DMR is due no later than fifteen (15) days after completion of the quarterly reporting period in which the sample was taken.

c) Groundwater Monitoring Results

Monitoring results shall be recorded and submitted according to the monitoring frequency and schedule stipulated in the SMCRA permit issued by the OSM.

2. Definition of "Quarter" for Reporting Purposes

For the purpose of this permit, a "quarter" is defined as any of the following three-month periods: January 1 through March 31; April 1 through June 30; July 1 through September 30; and October 1 through December 31.

3. Number of Copies of DMR Forms to Be Submitted

Two (2) copies of each DMR form are to be submitted to the Division. The permittee should retain a copy for his file.

4. Signature Requirements for DMR Forms

The DMR forms shall be signed and certified by a principal corporate officer of at least the level of vice-president, a general partner or proprietor, or his duly authorized representative. Such authorization shall be submitted in writing, signed by the permittee, and shall explain the duties and responsibilities of the authorized representative.

5. Address for Submittal of DMR Forms

DMR forms and any communication regarding compliance with the conditions of this permit shall be sent to:

**Tennessee Department of Environment and Conservation
Division of Water Resources
3711 Middlebrook Pike
Knoxville, TN 37921-6538
ATTENTION: Mining Compliance**

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculation and reporting of the values required on the DMR. Such increased frequency shall also be indicated.

7. Falsifying Reports

Knowingly making any false statement on any report required by this permit may result in the imposition of criminal penalties as provided for in *Section 309 of The Federal Clean Water Act of 1977*, as amended, and in *Section 69-3-115(C) of The Tennessee Water Quality Control Act of 1977*, as amended.

8. Reporting Less Than Detection

For the purpose of evaluating compliance with the permit limits established herein, where certain limits are below the State of Tennessee published Required Detection Levels (RDLs) for any given effluent characteristics, the results of analyses below the RDL shall be reported as Below Detection Level (BDL), unless in specific cases other detection limits are demonstrated to be the best achievable because of the particular nature of the wastewater being analyzed.

J. REOPENER CLAUSE

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under *Sections 301(b)(2)(C) and (D), 307(a)(2) and 405(d)(2)(D) of the Clean Water Act*, as amended, if the effluent standard, limitation or sludge disposal requirement so issued or approved:

1. Contains different conditions or is otherwise more stringent than any condition in the permit or,
2. Controls any pollutant or disposal method not addressed in the permit,
3. The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

K. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge and shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge(s) to or mixing with the receiving waters.

Wastewater Characteristics must be sampled and measured using sufficiently sensitive analytical methods referenced in *40 CFR Part 136*.

2. Test Procedures

- a) Test procedures for the analysis of pollutants shall conform to regulations published pursuant to *Section 304(h)* of *The Federal Clean Water Act of 1977*, as amended, under which such procedures may be required.
- b) Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in *Title 40, CFR, Part 136*, as amended, promulgated pursuant to *Section 304 (h)* of *The Federal Clean Water Act of 1977*, as amended.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The date, exact place, and time of sampling or measurements;
- b) The individual(s) who performed the sampling or measurements;
- c) The date(s) analyses were performed;
- d) The individual(s) who performed the analyses;
- e) The analytical techniques or methods used; and
- f) The results of such analyses.

4. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of

instrumentation, shall be retained for a minimum of three (3) years, or longer, if requested by the Division, and be readily available to the Division's representative for review.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director no later than 180 days prior to the expiration date.

2. Right of Entry

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials to:

- a) Enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and copy these records;
- b) Inspect any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit and;
- c) Sample any discharge of pollutants.

3. Availability of Reports

Except for data determined to be confidential under *Section 308 of The Federal Clean Water Act of 1977*, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the Division. As required by the Federal Act, effluent data shall not be considered confidential.

4. Proper Operation and Maintenance

- a) Proper operation and maintenance shall be implemented at this site to control and minimize pollutants from entering the wastewater treatment structure(s). For actively mining sites, we recommend daily operation and maintenance visits to sediment ponds. The daily visual inspection requirement extends to BMPs or other treatment devices established to control storm water discharges associated with access roads and haul roads.
- b) The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

c) Dilution water shall not be added to comply with effluent requirements.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal right, nor any infringement of federal, state, or local laws or regulations.

6. Severability

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

7. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in a report to the Director, then he shall promptly submit such facts or information.

8. Best Management Practices (BMPs)

The permittee shall utilize BMP to prevent or minimize erosion and the contribution of suspended solids and sediment to surface waters and/or adjacent properties. Such practice(s) shall be implemented to reduce the impacts caused by disturbances created by the installation of culverts, the construction of haulroads, access roads, spoil storage, and stockpile areas, and other related activities.

BMPs include, but are not limited to, rapid grading, mulching, and revegetation of disturbed areas, straw bales, sediment traps and swells, vegetative buffer zones, erosion control structures, and rock check dams. BMPs are used in conjunction with effluent limitation guidelines as supplemental or auxiliary erosion control measures and are not to be considered as substitutes for monitoring requirements of point source discharges.

Additional information regarding acceptable practices may be found in the *Tennessee Erosion and Sediment Control Handbook, 4th Edition, August 2012*, which is available from the Division.

B. CHANGES AFFECTING THE PERMIT

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in *40 CFR 122.29(b)*; or

- b) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to requirements under *40 CFR 122.42 (a) (1)*.

2. Permit Modification, Revocation, or Termination

- a) This permit may be modified, revoked and reissued, or terminated for cause as described in *40 CFR 122.62* and *122.64*.
- b) The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- c) If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under *Section 307(a) of The Federal Clean Water Act of 1977*, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit on the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.

3. Change of Ownership

Individual permits are not transferable to any person except after notice to the Commissioner, as specified below:

- a) The permittee notifies the Commissioner of the proposed transfer at least thirty (30) days in advance of the proposed transfer date;
- b) The notice includes a written agreement between the existing and new permittee containing a specified date for transfer of the permit responsibility, coverage, and liability between them;
- c) The permittee must provide the following information to the Commissioner in their formal notice of intent to transfer ownership:
 - (1) The permit number of the subject permit;
 - (2) The effective date of the proposed transfer;
 - (3) The name and address of the transferor;
 - (4) The name and address of the transferee;
 - (5) The names of the responsible parties for both the transferor and transferee;
 - (6) A statement that the transferee assumes responsibility for the subject permit;
 - (7) A statement that the transferor relinquishes responsibility for the subject permit;
 - (8) The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of this part; and
 - (9) A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.

- d) The Commissioner, within thirty (30) days, does not notify the existing permittee and the proposed new permittee of his intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

NOTE: To expedite and facilitate the permit transfer process and provide the required information, the Division has prepared two documents, "Notice of Transfer: National Pollutant Discharge Elimination System Permit" and "NPDES Permit Application Addresses Transfer of Ownership." These documents may be obtained by contacting the Division at telephone number (865) 594-5460.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice, the original address of the permittee will be assumed to be correct.

C. NON-COMPLIANCE

1. Effect of Non-Compliance

All discharges shall be consistent with the terms and conditions of this permit. Any permit non-compliance constitutes a violation of applicable state and federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Non-Compliance

a) 24-Hour Reporting

In the case of any non-compliance which could cause a threat to the public drinking water supplies, or any other discharge which could constitute a threat to human health or the environment, a required notice of non-compliance shall be provided to the Division of Water Resources within twenty-four (24) hours from the time the permittee becomes aware of the circumstances.

Telephone No. (865) 594-6035

Fax No. (865) 594-6105

Additionally, written submission shall be provided within five (5) days of the time the permittee becomes aware of the circumstances unless the Director on a case-by-case basis waives this requirement. The permittee shall provide the Director with the following information:

- (1) A description of the discharge and cause of non-compliance;
- (2) The period of non-compliance, including exact dates and times, or, if not corrected, the anticipated time non-compliance is expected to continue; and
- (3) The steps being taken to monitor, reduce, eliminate, and prevent recurrence of the non-complying discharge.

This written notice shall not be considered as excusing or justifying the failure to comply with the effluent limitations. This non-compliance shall also be reported on the DMR. The details may be incorporated by reference to the written five (5) day notification.

b) Scheduled Reporting

For instances of non-compliance which are not reported under subparagraph 2(a) above, the permittee shall report the non-compliance on the DMR. The report shall contain all information concerning the steps taken, or planned, to monitor, reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Bypassing

- a) "Bypass" means the intentional diversion of wastes from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which could cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- b) Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless the following three (3) conditions are met:
- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submits notice of an unanticipated bypass to the Division within twenty-four (24) hours of becoming aware of the bypass (if this information is provided orally, a written submission shall be provided within five (5) days). When the need for the bypass is foreseeable, prior notification shall be submitted for approval to the Director, if possible, at least ten (10) days before the date of the bypass.
- c) The Director may prohibit bypass in consideration of the adverse effect of the proposed bypass or if the proposed bypass does not meet the conditions set forth in subparagraphs 3(b)(1) and (2).
- d) The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of subparagraph b. above.

4. Upset

- a) "Upset" means an exceptional incident in which there is unintentional and temporary non-compliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include non-compliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b) Conditions necessary for the demonstration of an upset. An upset shall constitute an affirmative defense to an action brought for non-compliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) At the time the permitted facility was being operated in a prudent and workman like manner and in compliance with proper operation and maintenance procedures;
 - (3) The permittee submitted information required under "Reporting of Non-Compliance" within twenty-four (24) hours of becoming aware of the upset (if this information is provided orally, a written submission shall be provided within five (5) days); and
 - (4) The permittee complied with any remedial measures required under "Adverse Impact."
- c) In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from non-compliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge. In an enforcement action, it shall not be a defense for the permittee that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. LIABILITIES

1. Civil and Criminal Liability

Except as provided in permit conditions for "Bypassing," nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the state of Tennessee including, but not limited to, fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or *The Federal Clean Water Act of 1977*, as amended.

3. Liability to Obtain Required Permits

It is a violation of this permit to fail to obtain a permit or permit coverage for any activity that requires a permit under *The Tennessee Water Quality Control Act of 1977*.

PART III

A. GENERAL REQUIREMENTS

1. Prior to the creation of any disturbed area or point source discharge within the projected area of operation, and prior to changes, corrections, modifications, or adjustments in the location of any point source discharge, an Engineering Plan shall be submitted to and approved by the Division of Water Resources.
2. No mining activity shall be conducted within the projected area of operation unless the detailed Engineering Plan for the specific area of operation or disturbance has been approved in advance. The Engineering Plan shall include those documents, maps, drawings, and other materials as required by the Division.

B. TERMINATION OF MONITORING

Monitoring of a discharge may be terminated when all of the following have been satisfactorily completed:

1. Sufficient data has been accumulated to show to the satisfaction of the Director that the untreated discharge from an area where mining is completed shall meet limitations established by the Division as stated herein [Part I, A (1), Page 1]. Other factors such as watershed or background characteristics may be taken into consideration if sufficient data and documentation are provided to the Division by the permittee.
2. The permittee or his duly authorized representative submits proof of final bond release and a letter to the Division of Water Resources requesting permit termination.
3. The discharge emanates from an area on which the SMCRA Regulatory Authority has fully released the reclamation bond or has taken similar action. Proof of final bond release or similar action taken must be furnished.
4. After a thirty day (30) public notice, there is no adverse public comment to uphold termination.

C. EXAMPLES OF DISCHARGES COVERED BY THIS PERMIT

Examples of discharges which are covered by *The Federal Clean Water Act of 1977*, as amended, and this permit include, but are not limited to, the following:

1. Pumped or gravity drainage from the permitted area including, but not limited to, the mine, overburden storage and stockpile areas; and other adjacent areas which are associated with or incidental to the extraction of a natural resource or related activities.
2. Discharges from sediment control structures and/or treatment facilities.

D. DURATION AND REISSUANCE OF PERMITS (*RULE 1200-4-1-.05 [5] [C]*)

The Commissioner or his duly authorized representative (i.e. State Director) shall review the permit and other available information to insure:

1. That the permittee is in compliance with or has substantially complied with all terms, conditions, requirements, and schedules of compliance of the expired permit;
2. That the Commissioner has up-to-date information on the permittee's production levels, permittee's waste treatment practices, nature, contents, and frequency of permittee's discharge, either pursuant to monitoring records and reports submitted to the Commissioner by the permittee; and,
3. That the discharge is consistent with applicable effluent standards and limitations, water quality standards, and other legally applicable requirements including any additions to, or revisions or modifications of such effluent standards and limitations, water quality standards, or other legally applicable requirements during the term of the permit.

E. TOXIC POLLUTANTS

The permittee shall notify the Division as soon as it knows or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant (listed in *40 CFR, Part 122, Appendix D, Table II and III*) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a) One hundred micrograms per liter (100 µg/L);
 - b) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c) Five (5) times the maximum concentration value reported for that pollutant in the permit application; in accordance with *122.21(g)(7)*; or
 - d) The level established by the Director in accordance with *122.44(f)*.
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a) Five hundred micrograms per liter (500 µg/L);
 - b) One milligram per liter (1 mg/L) for antimony;

- c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *122.21(g)(7)*; or
 - d) The level established by the Director in accordance with *122.44(f)*.
3. They have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application under *122.21(g)(9)*.

F. DEFINITIONS

1. "*Access Road/Haul Road*" is any road constructed, maintained, or used by the operator of a mining facility primarily for the purpose of transporting raw materials, equipment, manufactured products, waste material, or by-products, and is located within the affected area.
2. "*Batch discharge*" for the purpose of this permit means the controlled release through a pipe (valve) of a known quantity and quality of treated wastewater that has been pumped to a treatment system after such water has been physically and/or chemically treated to meet permit limits.
3. "*Best Management Practices (BMPs)*" means a practice or a combination or series of practices designed to prevent or minimize the amount of pollution generated by non point sources, such as haulroads, access roads, spoil storage and stockpile areas, site preparation, installation of culverts, and other related activities.
4. "*Bypass*" means the intentional diversion of wastes from any portion of a treatment facility.
5. "*Calendar Day*" is defined as any 24-hour period.
6. "*Clean Water Act*" or "*Act*" means the *Federal Clean Water Act of 1977* (formerly referred to as *The Federal Water Pollution Control Act* or *The Federal Water Pollution Control Act Amendments of 1972*), as amended.
7. "*Coal Preparation Plant*" means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then is loaded for transit to a consuming facility.
8. "*Coal Preparation Plant Associated Areas*" means the coal preparation plant yards, immediate access roads, coal refuse piles and coal storage piles and facilities.
9. "*Commissioner*" means the Commissioner of the Tennessee Department of Environment and Conservation or the Commissioner's duly authorized representative.
10. "*Composite sample*" means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

11. *"Controlled surface mine drainage"* means any surface mine drainage that is pumped or siphoned from the active mining area.
12. *"Daily Maximum Concentration"* is a limitation on the average concentrations in milligrams per liter, of the discharge during any calendar day.
 - (a) When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite.
 - (b) When other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.
13. *"Director"* means the Regional Administrator or the State Director, as the context requires or an authorized representative.
14. *"Discharge of a Pollutant"* means: "(a) Any addition of any 'pollutant' or combination of pollutants to 'waters of the United States' from any 'point source,' or (b) ... This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man..."(see 40 CFR 122.2)
15. *"Division"* means the Division of Water Resources.
16. *"Grab Sample"* means an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding fifteen (15) minutes.
17. *"Industrial Waste"* means any liquid, solid, gaseous substance, or combination thereof, or form of energy including heat, resulting from any process of industry, manufacture, trade, or business or from the development of any natural resource.
18. *"Maximum for any 1 day"* means a limitation of the total concentration by volume in milliliters per liter (ml/l) or concentration by weight in milligrams per liter (mg/l) of any pollutant in the discharge during any time of a calendar day.
19. *"Mine"* shall mean an area of land, surface or underground, actively mined for the production of a natural resource. Such areas shall also include any adjacent land, the uses of which is incidental to any such activities; all lands affected by the construction of new roads or the improvement or use of existing roads, except maintained public roads, to gain access to the site of such activities and for haulage; excavations, workings, impoundments, dams, dumps, stockpiles, overburden piles, holes or depressions, repair areas, storage areas, and other areas upon which are sited structures, or other property or materials on the surface, resulting from or incidental to such activities.
20. *"Monthly Average Concentration"* is a limitation on the discharge concentration in milligrams per liter, as the arithmetic mean of all daily concentrations determined in an one-month period.
21. *"National Pollutant Discharge Elimination System (NPDES)"* means the Federal Environmental Protection Agency's (EPA) national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing water quality permits. The term includes an "approved state program."
22. *"Pollutant"* for the purpose of this permit means industrial waste.

23. "*Regional Administrator*" means the Administrator for the Environmental Protection Agency or his authorized representative.
24. "*Storm Water Discharges Associated with Access Roads and Haul Roads*" means the discharge from any conveyance which is used for collecting and conveying storm water from immediate access roads and haulroads. This term does not apply to discharges from public roads or discharges routed to and adequately treated by approved wastewater treatment structures.
25. "*TBEL*" means Technology Based Effluent Limit that requires a minimum level of treatment of pollutants based on best available treatment technologies. TBELs are derived by using national effluent limitation guidelines from EPA and/or applicable state guidelines or best professional judgment in the absence of these guidelines.
26. "*Tennessee Water Quality Control Act of 1977*," as amended, *TCA 69-3-101 et seq.*, is the act that sets forth the guidelines and procedures for the abatement and prevention of pollution to the waters of the state. The act enables the state of Tennessee to qualify for full participation in the NPDES permit program.
27. The term "*10 year, 24 hour precipitation event*" means the maximum 24-hour precipitation event with a probable recurrence interval of once in ten (10) years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, and subsequent amendments or equivalent regional or rainfall probability information developed therefrom.
28. The terms "*treatment facility*" and "*treatment system*" mean all structures which contain, convey, and as necessary, chemically or physically treat coal mine drainage, coal preparation plant process wastewater, or drainage from coal preparation plant associated areas, which remove pollutants regulated by the Division from such waters. This includes all pipes, channels, ponds, basins, tanks, and all other equipment serving such structures.
29. "*Upset*" means an exceptional incident in which there is unintentional and temporary non-compliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include non-compliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
30. "*Waters*" means any and all water, public and private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters. The term "waters" also includes tributary streams, drainways, and conveyances that enter or drain into any and all water, public or private, on or beneath surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownerships which do not combine or effect a junction with natural surface or underground waters.
31. "*WQBEL*" Water Quality Based Effluent Limit and is used when the technology based effluent limitations (TBELs) are not sufficiently stringent to meet water quality standards.

WQBELs are derived by using all available water quality data (i.e. numeric, narrative, aquatic life, watershed and background data.)

G. ANTIDegradation STATEMENT

Pursuant to the *Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-04-03-.06*, titled "Tennessee Antidegradation Statement," and in consideration of the Department's directive in attaining the greatest degree of effluent reduction achievable in municipal, industrial, and other wastes, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other state or federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.

RATIONALE
*Surface Coal Mine
Non-Controlled Drainage*

APPOLO FUELS INC.
NPDES Permit TN0069281
SMCRA Permit 3264
Claiborne County, Tennessee

Permit Writers: Dave Turner and Micheal Robbins

August 18, 2014

I. DISCHARGER

Appolo Fuels Inc.
P. O. Box 4727
Middlesboro, KY 40965

Contact: Mr. Gary Asher, President

Address: Valley Creek Road at Rich Gap
Claiborne County, Tennessee

Nature of Business: Bituminous Surface Coal Mine

SIC Code(s): 1321

Industrial Classification: Primary

Discharger Rating: Minor

II. PERMIT STATUS

NPDES Permit TN0069281 issued August 18, 2014

NPDES Permit TN0069281 expires August 17, 2019

Application for Permit Renewal to be received by February 17, 2019

III. APPLICATION TYPE AND BACKGROUND INFORMATION

Appolo Fuels Inc. (Appolo) is applying for a National Pollution Discharge Elimination System (NPDES) permit for a new surface coal mine facility in Claiborne County. This facility will mine the Sterling and Strays coal seams on disturbed areas and benches left from a pre-law coal mine located on Log Mountain in Claiborne County at latitude N 36°32'18" and longitude W 83°50'48".

IV. FACILITY DISCHARGES AND RECEIVING WATERS

This facility will discharge treated mine wastewater and storm water from outfalls to unnamed tributaries in the Clear Fork of Cumberland River Watershed (HUC 05130101) in Claiborne County, Tennessee. The classified uses for these streams are fish and aquatic life, livestock watering and wildlife, recreation, and irrigation. See Tennessee Department of Environment and Conservation (TDEC) *Rules Chapter 0400-40-04*.

OUTFALLS	RECEIVING STREAMS
S20	Unnamed tributary of Burrell Creek
S21, S1A, S1B, S02, S01	Unnamed tributaries of Tackett Creek
B01, B02, B03, B21	Unnamed tributaries of Valley Creek
B04, B05, B06, B07, B08, B09, B10, B11, B12, B13, B14	Unnamed tributaries of Hurricane Creek
B15, B16, B17, B18, B19, B20	Unnamed tributaries of Pigeon Roost Branch
B22, B23, B24, B25, B26, B27	Unnamed tributaries of Bear Creek
B28, B29, B30	Unnamed tributaries of Spruce Lick Branch

V. STATE OF TENNESSEE ANTIDEGRADATION POLICY

Tennessee's Antidegradation Statement is found in TDEC *Rule Chapter 0400-40-04-03-.06*. The purpose of the Tennessee's standards is to fully protect existing uses of all surface waters as established under the Act. Existing classified uses are those actually attained in the waterbody on or after November 28, 1975. The Department determines if the waters impacted by the proposed activity are ones with available parameters, unavailable parameters, Exceptional Tennessee Waters, Outstanding Natural Resource Waters, or if they are in more than one category.

Exceptional Tennessee Waters

High quality waters are those identified by TDEC as falling in one of the categories specified in *Rule 0400-40-03-.06(4)* for Exceptional Tennessee Waters. Degradation may only be allowed in such waters if, after an analysis of alternatives, it is justifiable as the result of necessary economic or social development except that previously authorized discharges are only subject to the alternatives analysis. See *Rule 0400-40-03-.06 (4)*.

This application has identified discharges to Spruce Lick Branch and Burrell Creek that are designated as Exceptional Tennessee Waters. The applicant has submitted the required alternatives analysis, and necessary economic information. The Division issued a Notice of Determination on September 10, 2013.

Stream Assessment and 303(d) List

This facility also discharges treated wastewater and storm water into the following streams:

OUTFALLS	RECEIVING STREAMS	303d LISTED
S20	UT of Burrell Creek	Yes
S21, S1A, S1B, S02, S01	UT of Tackett Creek	No
B01, B02, B03, B21	UT of Valley Creek	No
B04, B05, B06, B07, B08, B09, B10, B11, B12, B13, B14	UT of Hurricane Creek	No
B15, B16, B17, B18, B19, B20	UT of Pigeon Roost Branch	No
B22, B23, B24, B25, B26, B27	UT of Bear Creek	No
B28, B29, B30	UT of Spruce Lick Branch	No

The above receiving streams are not listed on the 2012 303(d) list with the exception of Burrell Creek. This facility will discharge into Hydrologic Unit Codes (HUC) sub-watersheds 05130101-0601, 05130101-0602 and 05130101-0201. Both sub-watersheds 05130101-0601 and 05130101-0201 are included in a Clear Fork of the Cumberland River Total Maximum Daily Load (TMDL). However, Sub-watershed 05130101-0201, which includes Tackett Creek and Spruce Lick, are excluded from the TMDL.

Section 303(d) of the federal Clean Water Act (CWA) requires each state to develop a TMDL for those water bodies within its boundaries that are not attaining water quality standards. The TMDL process identifies the sources of the pollutant, quantifies the amount of a pollutant and establishes the maximum allowable loadings of a pollutant that will allow the waterbody to maintain water quality standards. A TMDL is developed on a watershed basis and is prioritized based on the severity of pollution. In accordance with 40 CFR 130.7, the proposed TMDL is placed on public comment and review.

The Division of Water Resources (Division) developed a TMDL addressing the Clear Fork of the Cumberland River watershed which is listed on the TDEC's 2012 303(d) list for loss of biological integrity due to siltation. The Environmental Protection Agency (EPA) approved the TMDL on March 12, 2009. This facility was included in the watershed waste load calculations as disturbed mining acreage. The outfalls from this mining facility that will discharge into sub-watersheds 0601 and 0201 were included in the determination of the Waste Load Allocation (WLA). These WLA's listed in the spreadsheet are within the margin of safety for this TMDL.

The Clear Fork of the Cumberland River TMDL models the existing load for Hydrologic Unit Code (HUC) 05130101 at 414 lbs./ac/year, and establishes a target load for HUC05130101-0601 at 276.1 lbs./ac/year (a required load reduction of 33.3%.) Under the conditions of this permit the TMDL projects a load reduction from 414 lbs./ac/year to 107.7 lbs./ac/year from the site which demonstrates a reduction in loading much greater than the 33.3% target load required in the TMDL.

A TMDL has also been developed for *E. coli* in the Clear Fork of Cumberland River Watershed (HUC 05130101) and was approved by the Environmental Protection Agency on August 23, 2007. The Division does not consider *E. coli* a parameter of concern at this site.

Therefore, according to the information available to the Division, the receiving water bodies for this project meet the specifications described at *Chapter 0400-40-03-.06(3) (a)*.

VI. HISTORICAL MONITORING, COMPLIANCE, AND INSPECTION INFORMATION

A. Outfall Effluent Monitoring

Appolo’s permit application has proposed using two existing permitted ponds under the Bennett’s Fork Tennessee Mine NPDES Permit (TN0072338), Ponds 20 and 21 and four ponds permitted under the Buckeye Springs Surface Mine II NPDES Permit (TN0079634), Ponds SS-1, SS-2, BP-01A and BP-01B. The Division reviewed the Discharge Monitoring Reports (DMR) data for those ponds for the period from 2008 to 2013. Appolo reported no excursions of the NPDES limitations for these outfalls during the period.

B. Surface Water Monitoring

Appolo collected surface water samples to comply with the Standard Operating Procedure Water Quality Requirements for Coal Mine Permitting Actions in Tennessee in association with Tennessee’s Local Interagency Work Agreement December 20, 2010. This pre-mine water quality data includes an extended list of water quality parameters with an emphasis on the heavy metals. The sample collection occurred during base flow conditions that reflect flow conditions that are not a direct influence of precipitation event within 48 hours of sampling.

The water quality demonstrated compliance with the WQS. The surface water monitoring points are listed below and the data is included in Appendix 1.

Monitoring Point	Latitude	Longitude	Stream
SW-3/R	36.5357	83.8172	Tackett Creek
SW-4/R	36.5316	83.8222	Tackett Creek
SW-5/R	36.5246	83.8299	Tackett Creek
SWIM-7R	36.5381	83.8365	Spruce Lick Branch
SW-8/R	36.5362	83.8442	Spruce Lick Branch
SW-13/R	36.5495	83.8412	Hurricane Creek
SWIM-14R	36.5676	83.8431	UT Hurricane Creek
SWIM-15/R	36.5558	83.8503	Hurricane Creek
SW-23/R	36.5544	83.8518	UT Hurricane Creek
SWIM-17/R	36.5582	83.8562	Pigeon Roost Branch
SWIM-18R	36.5727	83.8629	Bear Creek
SW-19/R	36.5702	83.8714	Bear Creek
SW-26/R	36.5676	83.8663	UT Bear Creek
SWIM-10/R	36.541	83.8491	Valley Creek
SW-11/R	36.5521	83.873	Valley Creek
SW-21/R	36.5408	83.849	Valley Creek
SW-22/R	36.5468	83.8576	Valley Creek

SW-24/R	36.5641	83.8661	UT Valley Creek
SW-25/R	36.5599	83.8697	UT Valley Creek
SW-27-R	36.5553	83.8212	Burrell Creek

The Division has reviewed the surface water monitoring data of streams within the Valley Creek, Tackett Creek, and Bennett’s Fork watersheds associated with other Appolo mining operations. The Office Surface Mining’s (OSM) permit requires surface water samples and are used to determine concentrations of typical coal mine pollutants of concern. These parameters include sulfates, total dissolved solids and specific conductance.

C. Biological Assessments

Appolo conducts a Comprehensive Biological Monitoring Program (CBMP) within the Clear Fork of the Cumberland River watershed. This data is collected annually during the spring sampling period and within thirty days of the previous year’s sample date (typically in March). CBMP reports are reviewed by Division staff for compliance with the Department’s *Quality System Standard Operating Procedure (QSSOP) for Macroinvertebrate Stream Surveys*. The Division utilized biological monitoring in eleven of the CBMP survey locations to evaluate compliance with narrative WQS.

MACROINVERTEBRATE STREAM SURVEY STATIONS			
Station ID	Latitude	Longitude	Location
CLEAR035.6CL	36.5643	-83.9347	U/S of Nolan Branch
CLEAR037.3CL	36.5714	-83.9111	U/S of Valley Cr. Road bridge
VALLE000.1CL	36.57018	-83.91118	D/S of Bostica Cemetery Road bridge
VALLE002.3CL	36.55623	-83.8804	U/S BEAR CREEK
VALLE003.4CL	36.5500	-83.8612	100' U/S HURRICANE CREEK
PROOS000.2CL	36.5552	-83.8565	100' U/S 3112 MINE AREA
HURRI000.4CL	36.5557	-83.8512	100' U/S 3112 MINE AREA
SLICK001.8CL	36.5321	-83.8524	100' U/S MASON MINING
TACKE014.6CL	36.5243	-83.8299	U/S SPRUCE LICK BRANCH
TACKE015.5CL	36.5427	-83.8077	U/S OF 3191 MINE DRAINAGE
BENNE005.2CL	36.5821	-83.7837	D/S OF WATSON BRANCH

Biological data compiled at the CBMP stations indicated the majority of stream reaches affected by the proposed mining activities meet narrative water quality standards for biological integrity. Bennett’s Fork (including Burrell Branch) is listed as impaired due to siltation. The most recent biological assessment of Bennett’s Fork indicates this stream is trending toward meeting the narrative criterion for biological integrity. Please see Appendix 2.

(It is also available online at <http://tnmap.tn.gov/wpc/default.aspx?resetSession=true>.)

United States Fish and Wildlife Service (USFWS) has designated Bennett’s Fork (including Burrell Branch) as habitat for the Blackside dace, *Chrosomus Cumberlandensis*, state and federally listed as threatened. USFWS has included Bennett’s Fork (including Burrell Branch) as a primary protection zone for Blackside dace. Appolo has agreed to follow approved plan as specified in this NPDES permit.

In March 2013, Appolo's conducted a required fish survey and documented the presence of Blackside dace in Spruce Lick Branch. As a result the Division has designated this reach of Spruce Lick Branch as Exceptional Tennessee Waters.

The Division will require a Blackside Dace survey for Spruce Lick Branch. The information collected for compliance with this permit must be reported to the Division, TWRA, OSM, and USFWS in an annual report.

VII. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

Effluent limitations applicable to these wastewater discharges are described in *40 CFR 434.35 Subpart C. New Source Performance Standards (NSPS)* include provisions applicable to discharges from an active surface mine.

NSPS Effluent Limitations		
<u>Pollutant or pollutant property</u>	<u>Monthly Average</u>	<u>Maximum for any 1 Day</u>
Iron, total	3.0 mg/l	6.0 mg/l
Manganese, total	2.0 mg/l	4.0 mg/l
TSS	35.0 mg/l	70.0 mg/l
pH	6.0-9.0 standard units at all times.	

VIII. ALTERNATE STORM LIMITATIONS

Alternate storm limitations, as described in *40 CFR 434.63* and in *Appendix A of 40 CFR Part 434* may apply to outfalls in this permit for different precipitation events. **PLEASE NOTE:** The permittee must monitor all of the wastewater parameters listed in Part I, A.1.a) of your NPDES permit during all precipitation events.

The following table indicates the alternate mine wastewater limits that will apply to discharges for various precipitation events:

Outfall	No Precipitation	Precipitation Event	1yr/24hr Event	2yr/24hr Event	10yr/24hr Event
Non- Controlled Surface Mines	SS, TSS, Fe, Mn, pH	SS, Fe, pH	SS, Fe, pH	SS, pH	pH

IX. TMDL COMPLIANCE

The discharge of any pollutant(s) from this facility that enters into a water body with an existing and approved Total Maximum Daily Load (TMDL) must comply with the TMDL and any applicable TMDL implementation plan.

In particular, discharges of total suspended solids (TSS) from outfalls via tributaries to Burrell Creek, Bear Creek, Hurricane Creek, Valley Creek and Pigeon Roost Branch shall not exceed applicable wasteload allocations established consistent with Appendix F of the approved TMDL for siltation in the Clear Fork of the Cumberland River Watershed (HUC 05130101). The total wasteload allocations for this permit apply to sub-watersheds 051301010601 and

051301010201 and are derived from a target unit load of 276.1 pounds of TSS per acre per year. See Appendix 3.

This permit requires Appolo to submit a quarterly TMDL Compliance Report. The Division has provided to Appolo an excel file, *TMDL Compliance Report.xls*. The submitted report must include the following information for each outfall discharging to the TMDL watershed:

Outfall values for each event

- Flow gpm & million gallons day (MGD)
- Discharge TSS mg/l
- Number of days of discharge event
- Calculated total TSS load value for each event

Facility values (includes all outfalls in TMDL)

- Total quarterly TSS load discharged
- Running total TSS annual load

X. REASONABLE POTENTIAL ANALYSIS OF TOXIC METALS, CYANIDE, AND TOTAL PHENOLS

EPA Form 2C, Item V, Part C, and *40 CFR §122.21(g)(7)* require permittees of coal mining facilities to submit analysis of their effluent for an extended list of parameters at least once during a permit cycle. Parameters having detectable concentrations must undergo a Reasonable Potential Analysis (RPA) to consider whether discharges from the facility could cause a violation of the Water Quality Standards (WQS). If the RPA does demonstrate that comparable test results are less than any applicable water quality criteria then a violation of the criteria for that parameter should not occur. If the RPA indicates that a discharge has the reasonable potential to cause or contribute to an in-stream excursion of a WQS, then the permit must contain effluent limits for that pollutant. See *40 CFR §122.44(d)*.

RPA Procedure

Reasonable potential analyses for outfalls that are representative of the mine wastewater are conducted to assess pollutants not included in the technology based effluent guideline for numeric water quality standards. The Division uses these analyses for inclusion of parameters in the NPDES permit as Water Quality Based Effluent Limits.

The Division and Appolo agreed to utilize surrogate special condition analysis of a permitted outfall discharge from the Bennett's Fork Surface Mine. Pond 2 collects and treats surface runoff and mine wastewater from the Sterling and Strays coal seams. Detectable concentrations of total cadmium (Cd), total copper (Cu), total nickel (Ni), and total zinc (Zn) were reported for this sample. The RPA for this wastewater analysis indicated that this discharge did not demonstrate a reasonable potential to exceed the in-stream WQS. See Appendix 4.

XI. PERMIT LIMITS AND MONITORING REQUIREMENTS

A. Wastewater Limitations

Wastewater Limitations				
<u>Wastewater Characteristics</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Maximum for any 1 Day</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Iron	3.0 mg/l	6.0 mg/l	Two per Month	Grab
Total Manganese	2.0 mg/l	4.0 mg/l	Two per Month	Grab
Total Suspended Solids ¹	35.0 mg/l	70.0 mg/l	Two per Month	Grab
Settleable Solids ²	N/A	0.5 ml/l	Two per Month	Grab
Flow (GPM) ³	Report	Report	Two per Month	Estimate
pH ⁴	6.0 to 9.0 Standard Units at all times		Two per Month	Measure

¹ Total Maximum Daily Load (TMDL) Compliance Report

The discharge of any pollutant(s) from this facility that enters into a water body with an existing and approved Total Maximum Daily Load (TMDL) must comply with the TMDL and any applicable TMDL implementation plan.

This permit requires Appolo to submit a quarterly TMDL Compliance Report will be sent to the permittee as an excel file, *TMDL Compliance Report.xls*. This report must include the following information for each outfall discharging to the TMDL watershed:

Outfall values for each event

- Flow gpm & million gallons day (MGD)
- Discharge TSS mg/l
- Number of days of discharge event
- Calculated total TSS load value for each event

Facility values (includes all outfalls in TMDL)

- Total quarterly TSS load discharged
- Running total TSS annual load

² The Division has included a Settleable Solids (SS) effluent limitation of 0.5 ml/l. This standard is based on Best Professional Judgment (BPJ) of the Division.

EPA studies and other research data indicate that the 0.5 ml/l limit for SS is achievable and is an effective and appropriate measure of sediment control both for active mines during precipitation events and for reclamation areas. See *EPA "Development Document for Final Effluent Limitations Guidelines and New Source Performance Standards for the Coal Mining Point Source Category" Effluent Guidelines Division, Office of Water, U. S. Environmental Protection Agency, EPA 440/1-82/057, Washington D. C., October, 1982.*

³ Flow measurements or estimates are used to determine the volume or quantity of wastewater that is discharged from each outfall. See 40 CFR 122. Measurement of flow volume provides operating and performance data on the wastewater treatment system,

helps in evaluating impacts on the receiving stream, and provides data to determine long term trends in treatment capacity and effectiveness.

- 4 When there is no discharge, monitoring of pH is to be made within the wastewater treatment structure (in-pond). Sample results should be noted on the DMR.

NOTE: *Rules of Tennessee Department of Environment and Conservation, Chapter 0400-40-04-03-.03, General Water Quality Criteria* establishes criteria for uses of state waters. To protect and maintain the classified use of the receiving stream for fish and aquatic life, the pH value shall not fluctuate more than 1.0 unit over a period of 24 hours and shall not be outside the following ranges: 6.0 – 9.0 in wadeable streams and 6.5 – 9.0 in larger rivers, lakes, reservoirs and wetlands.

B. Additional Wastewater Monitoring Requirements

The Division has determined that the following supplemental monitoring will be required of the effluent from all outfalls upon permit issuance.

Additional Monitoring Requirements		
ALL OUTFALLS		
<u>Wastewater Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Sample Frequency</u>	<u>Sample Type</u>
Sulfates (mg/l)	Two per Month	Grab
Specific Conductance (µS/cm)	Two per Month	Measure

C. Alternate Storm Limitations

Alternate storm limitations, as described in 40 CFR 434.63 and in Appendix A of 40 CFR Part 434 may apply to outfalls in this permit for different precipitation events. **PLEASE NOTE:** The permittee must monitor all of the wastewater parameters listed in Part I, A.1.a) of their NPDES permit regardless of the precipitation event. Monitoring data for each parameter must be asterisked on the DMR when applying the alternate storm limits.

If the mine operator is pumping mine wastewater to any treatment structure, the Alternate Storm Limitations would not apply for the discharges associated with pumping unless the discharge was a result of a 10-year/24-hour or greater precipitation event.

The following table indicates the alternate wastewater parameters that will apply to discharges for various precipitation events:

Outfall	No Precipitation	Precipitation Event	1yr/24hr Event	2yr/24hr Event	10yr/24hr Event
All Outfalls	SS, TSS, Fe, Mn, pH	SS, Fe, pH	SS, Fe, pH	SS, pH	pH

In order to claim the alternate storm exemptions, the permittee must do the following:

- 1) Notify the Division within 24-hours of knowledge of the limit exceedence.

2) Provide documentation that the discharge or increase in discharge was a result of a precipitation event of a certain magnitude. This can be in the form of one or more of the following:

- precipitation data
- weir flow measurements
- dated photographs
- or equivalent proof of record

The information in item two must be submitted with the DMRs.

D. Special Condition Analysis Requirements

Within six months of operation of each treatment structure, you are required to complete and submit Item V of NPDES application Form 2C. These outfall samples must be representative of the water quality of the treatment structure discharge. (e.g. In the case of an underground mine, it would include mine works drainage.) You do not have to complete portions of Item V requiring tests where you have already performed and reported under the discharge monitoring requirements of your NPDES permit. See 40 CFR Part 122.21(k)(5)(vi).

(i) EPA Form 2C, Part V. A. and 40 CFR Part 122.21(k)(5)(i) requires that you sample and analyze at least once for the parameters: Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Organic Carbon (TOC), Ammonia, and Temperature. (See Note)

Note: The permittee may request a waiver from testing and reporting of these parameters. They do not provide information essential to NPDES permit issuance. See 40 CFR Part 122.21(k)(5)(i).

(ii) EPA Form 2C, Part V. B. and 40 CFR Part 122.21 (k)(5)(ii) requires that you mark believed present or believed absent in your wastewater discharge for all parameters in Appendix D to Part 122, Table IV. If believed present, the parameter must be analyzed and the results reported. Iron and manganese must be marked present, wastewater analyzed and results reported.

(iii) EPA Form 2C, Part V. C. Metals, Cyanide, and Total Phenols and 40 CFR Part 122.21 (k)(5)(iii)(A) requires that you test and report analysis for the listed parameters in Appendix D to Part 122, Table III.

Antimony	Nickel	Copper
Arsenic	Selenium	Lead
Beryllium	Silver	Mercury
Cadmium	Thallium	Cyanide
Chromium	Zinc	Phenols, Total

(iv) Coal mining facilities are exempt from testing the list of organic compounds found in Form 2C and Appendix D to Part 122, Table II. See 40 CFR Part 122.21 (k)(5)(iii)(B).

If a review of your submitted data indicates a need to add or change permit effluent limitations or permit conditions to protect the classified uses of the receiving stream(s), your permit will be modified, revoked and re-issued or both to accomplish those changes. See 40 CFR 122.62.

E. Surface Water Monitoring Requirements

Appolo must collect surface water monitoring information at listed surface water monitoring points as required by the OSM permit and submit quarterly to the Division until final bond release.

Point	Latitude	Longitude	Stream
SW-3/R	36.5357	83.8172	Tackett Creek
SW-4/R	36.5316	83.8222	Tackett Creek
SW-5/R	36.5246	83.8299	Tackett Creek
SWIM-7R	36.5381	83.8365	Spruce Lick Branch
SW-8/R	36.5362	83.8442	Spruce Lick Branch
SW-13/R	36.5495	83.8412	Hurricane Creek
SWIM-14R	36.5676	83.8431	UT Hurricane Creek
SWIM-15/R	36.5558	83.8503	Hurricane Creek
SW-23/R	36.5544	83.8518	UT Hurricane Creek
SWIM-17/R	36.5582	83.8562	Pigeon Roost Branch
SWIM-18R	36.5727	83.8629	Bear Creek
SW-19/R	36.5702	83.8714	Bear Creek
SW-26/R	36.5676	83.8663	UT Bear Creek
SWIM-10/R	36.541	83.8491	Valley Creek
SW-11/R	36.5521	83.873	Valley Creek
SW-21/R	36.5408	83.849	Valley Creek
SW-22/R	36.5468	83.8576	Valley Creek
SW-24/R	36.5641	83.8661	UT Valley Creek
SW-25/R	36.5599	83.8697	UT Valley Creek
SW-27-R	36.5553	83.8212	Burrell Creek

F. Biological Assessment Requirements

Appolo implemented a Comprehensive Biological Monitoring Program (CBMP) within the Clear Fork of the Cumberland River watershed. Appolo must continue to conduct biological assessments following the below procedures annually during the spring sampling period and within thirty days of the previous year's sample date (typically in March). These surveys must utilize the most current revised edition of the Department's QSSOP for Macroinvertebrate Stream Surveys. Semi-quantitative riffle kicks are to be collected for each sample stream reach.

CBMP reports are reviewed by the Division staff for compliance with the Department's *Quality System Standard Operating Procedure (QSSOP) for Macroinvertebrate Stream Surveys* (Most current revised edition.). The Division will use biological monitoring in eleven CBMP stream to evaluate the compliance with narrative WQS for the Sterling and Strays Surface Mine 1.

The bio-assessment sample reaches are listed as follows:

MACROINVERTEBRATE STREAM SURVEY LOCATIONS			
Station ID	Latitude	Longitude	
CLEAR035.6CL	36.5643	-83.9347	U/S Nolan Branch
CLEAR037.3CL	36.5714	-83.9111	U/S Valley Cr. Road bridge
VALLE000.1CL	36.57018	-83.91118	D/S Bostica Cemetery Road bridge
VALLE002.3CL	36.55623	-83.8804	U/S BEAR CREEK
VALLE003.4CL	36.5500	-83.8612	100' U/S HURRICANE CREEK
PROOS000.2CL	36.5552	-83.8565	100' U/S 3112 MINE AREA
HURRI000.4CL	36.5557	-83.8512	100' U/S 3112 MINE AREA
SLICK001.8CL	36.5321	-83.8524	100' U/S MASON MINING
TACKE014.6CL	36.5243	-83.8299	U/S SPRUCE LICK BRANCH
TACKE015.5CL	36.5427	-83.8077	U/S OF 3191 MINE DRAINAGE
BENNE005.2CL	36.5821	-83.7837	D/S OF WATSON BRANCH

Results from the CMBP must be submitted to the Division by no more than 120 days after the sampling date.

G. Special Fish Sampling

Bennett's Fork (including Burrell Branch) and Spruce Lick Branch are designated as Exceptional Tennessee Waters for the habitat of the blackside dace, *Chrosomus cumberlandensis*, listed as "Threatened" at both the state and federal levels. The OSM permit requires consultation between the permittee, U. S. Fish and Wildlife Service and the OSM in accordance with Section 7 of the Endangered Species Act.

Appolo must conduct annual blackside dace surveys in association with the Sterling and Strays Surface Mine 1. Blackside dace were first collected in Spruce Lick Branch in March 2013. The Division will require an annual blackside dace survey in Spruce Lick Branch.

Appolo must coordinate with the Tennessee Wildlife Resources Agency (TWRA) Region IV and US Fish and Wildlife for stream collections permits. The information collected in support of the NPDES must be provided to the Division and TWRA with the CBMP monitoring reports.

H. Adaptive Management Plan

Permits for new surface mining activity require the development and implementation of an Adaptive Management Plan (AMP) to maintain compliance with the numeric and narrative Water Quality Standards during mining and reclamation. Specific conductance will be used as a trigger for the AMP implementation for all outfalls.

This permit will require the implementation of an Adaptive Management Plan (AMP) of mine wastewater effluents to streams for assessment of compliance with the numeric and narrative Water Quality Standards during mining and reclamation. Specific conductance will be used as a trigger for the AMP implementation for all outfalls.

The Division has chosen specific conductance ≥ 500 $\mu\text{S}/\text{cm}$ as the *trigger* for the AMP process.
Appolo will implement the AMP process for any outfall(s) when the specific conductance of the effluent(s) is ≥ 500 $\mu\text{S}/\text{cm}$.

First, Appolo must notify the current Mining Section Manager Jonathon Burr at (865) 594-5520 or e-mail at Jonathon.burr@tn.gov within 48 hours of knowledge of any outfall discharge that exceeds the *trigger*. Second, Appolo must monitor daily for specific conductance, pH, and flow at the affected outfall and the appropriate surface water monitoring point(s) in the receiving stream.

The AMP will include the following items:

- 1) If this discharge condition persists for thirty calendar days, then Appolo must collect a sample for special conditions analysis of the parameters listed in Part X, D(iii) and submit the analysis to the Division.
- 2) Within thirty days, Appolo must develop an appropriate plan /Best Management Practices (BMPs) in order reduce specific conductance and to control any effluent parameter from each outfall that exceeds numeric or narrative WQS. Upon Division approval, Appolo will implement this specific plan.
- 3) When an outfall(s) effluent has an average specific conductance of ≥ 500 $\mu\text{S}/\text{cm}$ for thirty days (two monitoring periods) then Appolo must conduct a 48-hour static non-renewal Whole Effluent Toxicity Test (WETT), to be conducted within 30 days of the 2nd monitoring period. If more than two outfalls are involved then the WETT test must be conducted within sixty days. These samples must be collected from the pipe as effluent.
- 4) Static non-renewal tests must follow EPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, October 2002. Testing must include *Pimphales promelas* (fathead minnow) and *Ceriodaphnia dubia* (daphnid).

5) All WETTs will use a standard dilution series that brackets the receiving water concentration (RWC):

100%	50%	25%	12.5%	6.25%	Control
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(e.g. If the stream flow is 100gpm/0.22cfs at the discharge, and the effluent discharges at 10gpm/0.022cfs, then RWC is 10%. The concentration is bracketed by the 6.25% and 12.5% test dilutions.) When the receiving stream exhibits no surface flow upstream of the confluence with the discharge then 100% effluent will be considered the RWC. The RWC must be provided with all WETT results.

6) Tests using a reference toxicant must be run concurrently with the effluent tests. The results of this testing must be provided with the WETT results.

7) When a 48-hour Static non-renewal (Definitive) WETT is conducted, the receiving water concentration (RWC) must be less than the LC50 (lethal concentration) of the effluent tested (e.g. For permit compliance, if the test LC50 for the effluent is 10% then the RWC must be less than 10% effluent). When the receiving stream exhibits no surface flow upstream of the discharge, the LC50 must demonstrate No Acute Toxicity (NAT) in 100% effluent.

If the Static non-renewal tests results in a lethal concentration (LC⁵⁰) that is ≤100% effluent, then a re-test must be conducted within two weeks of obtaining the test results. The re-test will use a dilution series based on the receiving water concentration (RWC) when deemed appropriate by the Division.

100%	50%	25%	12.5%	6.25%	Control
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If it is determined that the discharge meets the criteria for a continuous discharge as defined in paragraph 8.3.4.1 of the *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October 2002, then a chronic WETT may be required for the re-test.

8) When a Chronic WETT is conducted, the receiving water concentration (RWC) must be less than the IC²⁵ (inhibition concentration) of the effluent tested (e.g. For permit compliance, if the test IC²⁵ for the effluent is 10% then the RWC must be less than 10% effluent). When the receiving stream exhibits no surface flow upstream of the discharge, the No Observed Adverse Effect Concentration, NOAEC, is 100% effluent.

9) If Appolo fails the WETT then it must conduct a Toxicity Identification Evaluation (TIE) and Toxicity Reduction Evaluation (TRE). Within 90 days of completing the TIE/TRE Appolo must submit a treatment strategy to the Division to eliminate toxicity from the effluent.

10) When a Chronic WETT re-test results demonstrate an IC²⁵ equal to greater than the receiving stream concentration of the effluent or the LC⁵⁰ is ≤100% effluent, then Appolo must identify the source(s) of the toxicity. Appolo must also

submit a treatment strategy to the Division to reduce and control the pollution source(s) within 30 days.

11) A WETT must be conducted twice a year on the outfall effluent until the Division determines the treatment strategy has brought the site into compliance with narrative and numeric Water Quality Standards.

12) The Division may authorize the return to regular outfall monitoring (twice per month) and permit limits if all available data indicates that the discharge meets permit effluent limitations, special condition analysis demonstrates no reasonable potential, or the specific conductance continues to measure less than 500 $\mu\text{S}/\text{cm}$, and WETT demonstrates no toxicity.

13) The AMP may be re-implemented for any outfall that fails to maintain a specific conductance with more than 500 $\mu\text{S}/\text{cm}$ after returning to regular outfall monitoring.

XII. MONITORING REQUIREMENTS FOR WASTEWATER DISCHARGES

EPA regulations require that monitoring and sampling frequencies be sufficient to yield data that are representative of the monitored activity including, if appropriate, continuous monitoring. See *40 CFR 122.48*. The monitoring frequencies established in this permit are based on Best Professional Judgment (BPJ) of the Division. We believe these monitoring frequency levels are protective of water quality and will provide sufficiently representative data of the monitored activity.

The nature and effect of the discharge and its impact on the receiving waters will be the basis for any change or modification in monitoring frequency. Impacts on the receiving waters will include any impairment of the stream use classifications. *TDEC's Rules Chapter 1200-04-03, Criteria for Water Uses (3) Fish and Aquatic Life* specify these classified uses.

XIII. STORM WATER DISCHARGES

(Access Roads and Haul Roads and Other Areas or Sources for Storm Water)

Limitations on Coverage

Most storm water runoff at mining facilities enters the mine treatment system (i.e., sediment control ponds). The combined runoff is considered mine wastewater/process wastewater and must meet the applicable effluent limitations for the discharge of treated mine wastewater. Applicable effluent limitations guidelines also cover runoff associated with access roads and haul roads that are constructed of mine waste materials and/or where mine wastewater is used for dust suppression.

The storm water provision applies only to discharges composed entirely of storm water runoff that is not directed to and/or controlled by existing or proposed treatment structures/systems for mine wastewater. Sufficient documentation (i.e., application plans, maps, addendums, etc.) of such treatment must be provided to the Division before the exemption is valid. Storm water is defined as storm water runoff, snow melt runoff, and surface runoff and drainage. *40 CFR 122.26*.

Background

In the *Water Quality Control Act of 1987*, Congress established controls on storm water discharges and authorized EPA to promulgate NPDES permit application rules for storm-water discharges associated with industrial activities. These rules cover active and inactive mining operations within the meaning of storm water discharges associated with industrial activities. *40 CFR 122.26*.

The definition of storm water discharges associated with industrial activities also covers access roads and haul roads. These areas are likely sources for pollutants associated with raw materials, intermediate products, and finished products that are transported to and from the facility. These roads will also be sources for pollutants such as oil and grease from vehicles and machinery using these roads. *55 FR 48065, November 16, 1990*. These provisions also cover other areas or sources on the NPDES permit boundary that include discharges composed entirely of storm water. *40 CFR 122.26*.

In accordance with EPA and state regulations, the Division has added these provisions to the NPDES to cover monitoring and reporting requirements for storm water discharges associated with access roads and haul roads and other areas or sources on the permit that include discharges composed entirely of storm water. These requirements are as follows:

<u>Parameter</u>	<u>Reporting Level</u>	<u>Monitoring Requirements</u>	
		<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Suspended Solids	150 mg/L*	Annually	Grab
Oil & Grease	15 mg/L	Annually	Grab
pH	5.0 to 9.0 Standard Units	Annually	Measure

* *If the storm water discharge is from an area not associated with an access road and haul road or is not a source for vehicular traffic monitoring for Oil and Grease is not required.*

The permittee shall monitor at least once a year the designated storm water outfalls (or demonstrated representative outfalls) associated with access roads and haul roads and/or any other area requiring storm water coverage. The sample shall be collected during any period (quarter) of the calendar year, as long as the samples are representative of the quantity and quality of the storm water runoff being discharged from the facility. The once per year monitoring requirement is based on *40 CFR 122.44, TNR050000, Sector AD, 5.1.1* and BPJ of the Division.

Sources for the parameter reporting levels for storm water discharges include *Sector AD of the Tennessee Storm Water Multi-Sector General Permit (TMSP), TNR050000* and Best Professional Judgment (BPJ) of the Division. The *TMSP* was reissued on May 15, 2009, and became effective on June 1, 2009. Sector AD includes reporting levels for pH, Oil and Grease, and Total Suspended Solids, the pollutants of primary concern relating to mine access roads and mine haul roads.

Total Suspended Solids (TSS) reporting level is based on (BPJ) after evaluating available monitoring data. The importance of the TSS reporting parameter is expressed as follows: "TSS is a reasonable screen or indicator of storm water discharge quality since many storm

water pollutants are themselves suspended solids, or enter receiving waters attached to solids.”
TMSR TNR050000, Rationale, page R-15.

NOTE: The storm water provision does not apply to discharges (and associated mine drainage) from coal mining facilities subject to the effluent limitations guidelines contained in *40 CFR 434*. Discharges of storm water that combine with mine drainage regulated under *40 CFR 434* must comply with the applicable effluent guidelines. The Division may apply the EPA guidelines to drainage from access roads and haul roads that are constructed of mine waste materials and/or where mine wastewater (if the wastewater is regulated under *40 CFR 434*) is used for dust suppression. This determination shall be made on a case-by-case basis.

XIV. PERMIT DURATION

The proposed limitations meet the requirements of Section 301(b)(2)(A), (C), (D), (E), and (F) of the Clean Water Act as amended. The permit will be issued for a five (5) year term.