TECHNICAL INFORMATION FOR A MINING PERMIT

This form supplies all technical information in regard to the mining and reclamation plan for the permit. It shall be filed in conjunction with MPA-01 for all original and amendment applications.	PERMIT NUMBER *807-0332 Am. #1* DSMRE ID NUMBER *000095*

3. Identification of Applicant/Engineer

3.1 Applicant Name *Appolo Fuels, Inc.*

3.2 Engineer *Timothy C. Howard* Registration No. *15,317*
Associated with *Howard Engineering & Geology, Inc.*
Address *P.O. Box 271, 2550 W.Hwy. 72 Suite 1*
City *Harlan* State *KY* Zip *40831*
Telephone No. *(606)573-6924 FAX (606)573-9543*

3.3 Indicate the name, address, and telephone number of the individual to whom all permit application correspondence including return of the application for correction or modification, is to be addressed. If such designation is not made, the cabinet will return the application only to the applicant. If such designation is changed at some future date, the applicant is responsible for notifying the cabinet.

Name *Timothy C. Howard* Telephone No. *(606)573-6924*
Address *P.O. Box 271, 2550 W.Hwy. 72 Suite 1*
City *Harlan* State *KY* Zip *40831*

4. Site Location Information

4.1 Name of proposed mine *Poplar Lick Mine*
Local Address *P.O. Box 1727, Middlesboro, Kentucky 40965*

4.2 Contact person at mine site *Leonard Thompson* Title *Environmental Manager*
Telephone Number *(606) 248-1535*

4.3 County(ies) *Bell* Quadrangle(s) *Fork Ridge & Kayjay*
Latitude *36-36-52* Longitude *83-46-55*
Nearest named stream *Hignite Creek* Nearest community *Middlesboro*

4.4 Is any of the proposed mining area previously permitted or pending permitting under KRS 350?
[*XX*] YES [ ] NO. If "YES", list the permittee name, permit number, and current status of operations. If additional pages are necessary, identify as "Item 4.4 continued".
See Attachment 4.4.A.

5. Application Information

5.1 Type of application [ ] Original [*X*] Amendment No. *1*

ATTACHMENT 4.4.A

PREVIOUSLY PERMITTED AREAS/OVERLAPS

The permit which will be overlapped as part of this permit application is described as follows:

1) Alpha Mining permit #807-5049. Permit is completely released.

The above listed permits have been delineated on the Mining and Reclamation Plan Map provided in this application.

5.2 Type of Operation: (check all appropriate boxes)

[ ]	Surface Area (SA)	[ ]	Refuse Disposal (RD)
[X]	Surface Contour (SC)	[ ]	Underground (UG)
[X]	Surface Auger (SG)	[ ]	Processing Plant (PP)
[ ]	Surface Remining (SR)	[ ]	Haul Road Only (LO)
[ ]	Surface Refuse Recovery (RR)	[ ]	Load Out Only (LO)
[ ]	Steep Slope (SS)	[ ]	In-situ (IS)
[ ]	Surface Mountaintop (SM)	[ ]	Other_____

6. Advance Notification Information

6.1 Is proposed permit located within boundaries for which a governmental planning agency has jurisdiction to act with regard to land use, air, or water quality planning? [ ] YES [XX] NO. If "YES", provide agency name and correct mailing address:

Agency Name _____
Mailing Address _____
_____

6.2 Is proposed permit area located within boundaries of any sewage and/or water treatment authorities, water companies which provide sewage or water services to citizens in the area or the proposed permit, or have water sources, collection, treatment, or distribution facilities located in the area of the proposed permit? [ ] YES [X] NO.

Authority/Company Name _____
Mailing Address _____
_____

6.3 Is proposed permit area located within the watershed of any U.S. Army Corps of Engineer projects? [ ] YES [X] NO. If "YES", indicate below and provide one additional copy of the application:

Huntington District	[ ]	Dewey Lake	[ ]	Fishtrap Lake
	[ ]	Grayson Lake	[ ]	Paintsville Lake
	[ ]	Yatesville Lake		
Louisville District	[ ]	Buckhorn Lake	[ ]	Carr Fork Lake
	[ ]	Cave Run Lake	[ ]	Green River Watershed
Nashville District	[ ]	Lake Cumberland	[ ]	Laurel River Lake
	[ ]	Martin's Fork Watershed	[ ]	Lake Barkley
	[ ]	Dale Hollow Lake	[ ]	Middlesboro Flood Control Project Watershed

6.4 Is proposed permit area located within the official limits of any town, city or municipality? [ ] YES [X] NO. If "YES", provide name and county:

Town/City Name _____ County _____

6.5 Was any of the data presented in this application prepared/provided as a result of a Small Operator Assistance Program (SOAP) grant?
[ ] YES [X] NO. If "YES", provide SOAP identification number _____.

6.6 Is the proposed permit boundary and acreage under this application the same as proposed under the corresponding "preliminary" permit application?
[ ] YES [X] NO. If "NO", describe differences:
8.40 acres of Spoil Storage Areas and 2.20 acres of Ponds have been deleted and 11.70 acres of Mining Area, 0.63 acres of Roads, 2.88 acres of Incidental Disturbance, 0.50 acres of Mine Management area and 0.40 acres of Road Control Zones have been added to the amendment application.

NOTE: If significant differences are determined to exist, another field walk by regional personnel may be required.

7. Permit Information

7.1 Each new original permit will be issued for a term of five (5) years. If an initial term in excess of five (5) years is required, provide the information stipulated by 405 KAR 8:010, Section 17 as "Attachment 7.1.A."
N/A, More than five (5) year permit term not requested

7.2 Provide the acreage associated with the following activities. If additional pages are necessary, identify as "Item 7.2 continued".

	Currently Permitted	Additions/ Deletions	Redesig-nations	Total Acreage
Mining or Face Up Areas	***108.12***	***+25.30***	---	***133.42***
Roads	***44.60*** [1]	***+5.34***	---	***49.94*** [1]
Sediment Ponds	***0.00*** [2]	***0.00*** [2]	---	***0.00*** [2]
Spoil Storage Areas	***3.77***	---	---	***3.77***
Coal Stockpile & Loading Areas	---	---	---	---
Mine Management Areas	***0.18***	***0.50***	---	***0.68***
Off Permit Disturbance Areas	***0.50***	---	---	***0.50***
Road Control Zones	***0.00*** [3]	***0.40***	---	***0.40***
Incidental Disturbance Areas	***1.00***	***12.38***	---	***13.38***
Total Surface Disturbance Area	***158.17***	***+43.92***	---	***202.09***
Underground Areas	---	---	---	---
Auger Areas	***109.64***	***+24.70***	---	***134.34***
Total Underground/Auger Area	***109.64***	***+24.70***	---	***134.34***
Permit Area	***267.81***	***+68.62***	---	***336.43***

See Attachment 7.2.A

7.3 If this permit contains acreage in more than one county, name the counties affected and specify surface and underground acreage within each county. If incremental acreage fees are being used, provide a table indicating acreage per county, per increment as Attachment 7.3.A.
N/A - All Acreage In Bell County Only

County	Total Surface Acreage	Total Underground Acreage

ATTACHMENT 7.2.A

[1] 16.84 Acres Of Road Area Double Use Included In Mining Area.

[2] 13.00 Acres Of Pond Area Double Use Included In Mining Area and Roads.

[3] Acreage included in Road P Area.

8. Bonding & Fees

8.1 Check the proposed bonding plan to be used:
[ ] Single Area [X] Incremental, with **Twenty (20)** total increments.

8.2 If incremental bonding is proposed, identify the increment(s) which will be initially bonded prior to permit issuance.
Increment #1

8.3 For incremental bonding submit an incremental bonding map to clearly identify the number and boundary of each increment.
See Attachment 8.3.A

8.4 Complete the following charts with acreage for each increment:

Increment	*#1**	*#2*	*#3*
Mining or Face Up Areas	---	---	*21.10*
Roads	*29.35*	---	---
Sediment Ponds	*0.00* [1]	---	*0.00* [2]
Spoil Storage Area	---	*3.77*	---
Incidental Off Permit Disturbance	*+1.08*	---	---
Mine Management Areas	---	---	---
Coal Stockpile & Loading Areas	---	---	---
Bench Access	---	---	---
Road Control Zones			
Total Surface Disturbance Area	*30.43*	*3.77*	*21.10*
Underground Areas	---	---	---
Auger Areas	---	---	*18.37*
Total Underground/Auger Area	---	---	*18.37*
Permit Area	*30.43*	*3.77*	*39.47*

[1] 0.50 ac. for Pond #20 will be double use bonded as Roads on Increment #1.
[2] 1.50 ac. for ponds #4, #5 & #6 double use bonded as Mining Area on Increment #3.
** - Increments Affected By Amendment #1*
See Attachment 8.4.A For Additional Increments.

THIS DOCUMENT IS A PLACEHOLDER. THE ORIGINAL HAS BEEN SENT FOR WIDE FORMAT SCANNING DUE TO SIZE LIMITATIONS. THE FULL DOCUMENT WILL BE INSERTED IN THIS LOCATION UPON ITS RETURN.

	#4*	#5*	#6*	#7*	#8*	#9*	#10*	#11*	#12	#13	#14	#15	#16*	#17*	#18*	#19*	#20*		TOTALS
3	#4*	#5*	#6*	#7*	#8*	#9*	#10*	#11*	#12	#13	#14	#15	#16*	#17*	#18*	#19*	#20*		TOTALS
10	14.04	9.01	17.41	10.40	9.32	17.61	9.23	---	---	---	---	---	+11.70	---	---	+13.60	---		133.42
--	---	---	---	---	---	---	---	5.52	---	---	8.60	1.13	---	+0.63	---	---	$+4.71^3$		49.94
^{2}0	0.00^2	0.00^2	0.00^2	0.00^2	0.00^2	0.00^2	0.00^2	$(11.00)^2$	---	---	---	---	0.00^2	$(1.00)^2$	---	0.00^2	---		0.00
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		3.77
--	+1.81	+1.84	+0.27	+2.16	+1.41	+3.27	+0.24	+1.30	0.50	---	---	---	---	---	---	---	---		13.86
--	---	---	---	---	---	---	---	---	---	0.18	---	---	---	---	+0.50	---	---		0.68
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---
--	---	---	---	---	---	---	---	$(8.56)^3$	---	---	---	---	---	$(1.93)^3$	---	---	---		0.00
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	+0.40	---	---		0.40
10	15.85	10.85	17.68	12.56	10.73	20.88	9.47	6.82	0.50	0.18	8.60	1.13	11.70	0.63	0.90	13.60	4.71		202.09
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---
--	---	---	---	---	---	---	---	---	---	---	---	---	+14.10	---	---	+10.60	---		134.34
37	16.66	9.58	15.59	12.17	11.53	16.67	9.05	---	---	---	---	---	14.10	---	---	10.60	---		134.34
37	16.66	9.58	15.59	12.17	11.53	16.67	9.05	---	---	---	---	---	25.80	0.63	0.90	24.20	4.71		336.43
47	32.53	20.43	33.27	24.73	22.26	37.55	18.52	6.82	0.50	0.18	8.60	1.13							

EMENT #8 INCREMENT #15

EMENT #9 INCREMENT #16

EMENT #10 INCREMENT #17

EMENT #11 INCREMENT #18

EMENT #12 INCREMENT #19

EMENT #13 INCREMENT #20

EMENT #14

* - INCREMENTS AFFECTED BY AMENDMENT #1

Appolo Fuels, Inc.
Application #807-0332
INCREMENTAL BONDING MAP
Amendment #1

SCALE 1" = 500'

CERTIFICATION

Timothy C. Howard P.E. No. 15,317

5/1/18

I certify in accordance with 405 KAR 7:040, Section 10, this document is correct as determined by accepted engineering practices and includes all information required by Chapter 350 and KAR Title 405.

STATE OF KENTUCKY
TIMOTHY C. HOWARD
15,317
LICENSED PROFESSIONAL ENGINEER

Prepared By
HOWARD
Engineering and Geology, Inc.

ATTACHMENT 8.4.A

INCREMENTAL BOND PLAN

Increment	#4*	#5*	#6*	#7*	#8*
Mining or Face Up Areas	14.04	9.01	17.41	10.40	9.32
Roads	---	---	---	---	---
Sediment Ponds	0.00 [2]	0.00 [2]	0.00 [2]	0.00 [2]	0.00 [2]
Spoil Storage Areas	---	---	---	---	---
Incidental Off Permit Disturbance Areas	+1.81	+1.84	+0.27	+2.16	+1.41
Mine Management Areas	---	---	---	---	---
Coal Stockpile & Loading Areas	---	---	---	---	---
Bench Access	---	---	---	---	---
Road Control Zones	---	---	---	---	---
Total Surface Disturbance Area	15.85	10.85	17.68	12.56	10.73
Underground Areas	---	---	---	---	---
Auger Areas	16.68	9.58	15.59	12.17	11.53
Total Underground/Auger Area	16.68	9.58	15.59	12.17	11.53
PERMIT AREA	32.53	20.43	33.27	24.73	22.26

[2] – 2.00 acres for Ponds #1A, #1, #2 & #3 double use bonded as Mining Area on Increment #4, 1.00 acres for Ponds #6A & #7 double use bonded as Mining Area on Increment #5, 1.50 acres for Ponds #8, #9 & #10 double use bonded as Mining Area on Increment #6, 1.00 acres for Ponds #11 & #12 double use bonded as Mining Area on Increment #7, 1.00 acres for Ponds #13 & #14 double use bonded as Mining Area on Increment #8.,

* - Increments Affected By Amendment #1

ATTACHMENT 8.4.A

INCREMENTAL BOND PLAN

Increment	#9*	#10*	#11*	#12	#13
Mining or Face Up Areas	17.61	9.23	---	---	---
Roads	---	---	5.52	---	---
Sediment Ponds	0.00 [2]	0.00 [2]	(11.00) [2]	---	---
Spoil Storage Areas	---	---	---	---	---
Incidental Off Permit Disturbance Areas	+3.27	+0.24	+1.30	0.50	---
Mine Management Areas	---	---	---	---	0.18
Coal Stockpile & Loading Areas	---	---	---	---	---
Bench Access	---	---	(8.56) [3]	---	---
Road Control Zones	---	---	---	---	---
Total Surface Disturbance Area	20.88	9.47	6.82	0.50	0.18
Underground Areas	---	---	---	---	---
Auger Areas	16.67	9.05	---	---	---
Total Underground/Auger Area	16.67	9.05	---	---	---
PERMIT AREA	37.55	18.52	6.82	0.50	0.18

[2] – 2.00 acres for Ponds #15, #16, #17 & #18 double use bonded as Mining Area on Increment #9, 0.50 acres for Pond #19 double use bonded as Mining Area on Increment #10.

[3] – 1.43 acres of Road double use bonded as Mining Area on Increment #3, 1.22 acres of road double use bonded as Mining Area on Increment #4, 0.74 acres of Road double use bonded as Mining Area on Increment #5, 1.44 acres of Road double use bonded as Mining Area on Increment #6, 0.89 acres of Road double use bonded as Mining Area on Increment #7, 0.78 acres of Road double use bonded as Mining Area on Increment #8, 1.33 acres of Road double use bonded as Mining Area on Increment #9 and 0.73 acres of Road double use bonded as Mining Area on Increment #10.

* - Increments Affected By Amendment #1

ATTACHMENT 8.4.A

INCREMENTAL BOND PLAN

Increment	#14	#15	#16*	#17*	#18*
Mining or Face Up Areas	---	---	+11.70	---	---
Roads	8.60	1.13	---	+0.63	---
Sediment Ponds	---	---	0.00 [2]	(1.00) [2]	---
Spoil Storage Areas	---	---	---	---	---
Incidental Off Permit Disturbance Areas	---	---	---	---	---
Mine Management Areas	---	---	---	---	+0.50
Coal Stockpile & Loading Areas	---	---	---	---	---
Bench Access	---	---	---	(1.93) [3]	---
Road Control Zones	---	---	---	---	+0.40
Total Surface Disturbance Area	8.60	1.13	11.70	0.63	0.90
Underground Areas	---	---	---	---	---
Auger Areas	---	---	+14.10	---	---
Total Underground/Auger Area	---	---	14.10	---	---
PERMIT AREA	8.60	1.13	25.80	0.63	0.90

[2] – 1.00 acres for Ponds #23 & #24 double use bonded as Mining Area on Increment #16.

[3] – 1.93 acres of Road double use bonded as Mining Area on Increment #16.

* - Increments Affected By Amendment #1

ATTACHMENT 8.4.A

INCREMENTAL BOND PLAN

Increment	#19*	#20*			Totals
Mining or Face Up Areas	+13.60	---			133.42
Roads	---	+4.71 [3]			49.94
Sediment Ponds	0.00 [2]	---			0.00
Spoil Storage Areas	---	---			3.77
Incidental Off Permit Disturbance Areas	---	---			13.88
Mine Management Areas	---	---			0.68
Coal Stockpile & Loading Areas	---	---			---
Bench Access	---	---			0.00
Road Control Zones	---	---			0.40
Total Surface Disturbance Area	13.60	4.71			202.09
Underground Areas	---	---			---
Auger Areas	+10.60	---			134.34
Total Underground/Auger Area	10.60	---			134.34
PERMIT AREA	24.20	4.71			336.43

[2] – 0.50 acres for Pond #25 double use bonded as Mining Area on Increment #19. A total of 0.50 acres for Pond #20 is being double use bonded as Road and 12.00 acres for Ponds #1 thru #19, #23 thru #25 are double use bonded as Mining Area for a total of 12.50 acres of ponds to be double use.

[3] – 6.35 acres of Road double use bonded as Mining Area on Increment #19. A total of 8.56 acres on Increment #11, 1.93 acres on Increment #17 and 6.35 acres on Increment #19 of Roads are double use bonded as Mining Area for a total of 16.84 acres of roads to be double use.

A total of 29.34 acres is double use but is only counted in the surface acres one time for a total of 201.71 acres as shown in Item 7.2 of this application.

* - Increments Affected By Amendment #1

8.5 Complete the following chart which details additional information about each increment.

Increment	#1	#2	#3
Prelaw Mined Acreage	---	---	---
Alternate Topsoil Acreage	---	*3.77*	*21.10*
Mulching Variance	---	---	---
Prime Farmland Acreage	---	---	---
Stream Channel Alternate Acreage	---	---	---
Number of Off Bench Ponds	*1*	*0*	*0*

See Attachment 8.5.A

If additional pages are necessary, duplicate this chart and identify as "Item 8.5 continued".

8.6 Provide a narrative describing all acreage overlaps. This includes double bonding and shared facilities (with identification of other permits involved). In addition, all overlaps shall be clearly identified on the map requested in Item 8.3.

N/A - No Overlaps Proposed per This Amendment.

8.7 Check the method of acreage fee payment to be used:

[ ] Single Area [*X*] Incremental

8.8 [*X*] Permitting processing fee of $375 is included.

If applicable, indicate amount of acreage fees included:

Number of surface acres ***43.92*** X $75 = ***3,300.00*** acreage fee.

To Be Provided When Application Is TAC'ed

ATTACHMENT 8.5.A

Increment	#4	#5	#6	#7	#8
Prelaw Mined Acreage	---	---	---	---	---
Alternate Topsoil Acreage	14.04	9.01	17.41	10.40	9.32
Mulching Variance	---	---	---	---	---
Prime Farmland Acreage	---	---	---	---	---
Stream Channel Alteration Acreage	---	---	---	---	---
Number of Off Bench Ponds	0	0	0	0	0

Increment	#9	#10	#11	#12	#13
Prelaw Mined Acreage	---	---	---	---	---
Alternate Topsoil Acreage	17.61	9.23	---	---	---
Mulching Variance	---	---	---	---	---
Prime Farmland Acreage	---	---	---	---	---
Stream Channel Alteration Acreage	---	---	---	---	---
Number of Off Bench Ponds	0	0	0	0	0

Increment	#14	#15	#16	#17	#18
Prelaw Mined Acreage	---	---	---	---	---
Alternate Topsoil Acreage	---	---	11.70	---	0.90
Mulching Variance	---	---	---	---	---
Prime Farmland Acreage	---	---	---	---	---
Stream Channel Alteration Acreage	---	---	---	---	---
Number of Off Bench Ponds	0	0	0	0	0

Increment	#19	#20			Total
Prelaw Mined Acreage	---	---			---
Alternate Topsoil Acreage	13.60	---			138.09
Mulching Variance	---	---			---
Prime Farmland Acreage	---	---			---
Stream Channel Alteration Acreage	---	---			---
Number of Off Bench Ponds	0	0			1

ATTACHMENT 8.6.A

Permit Overlaps

1. The Proposed Mining Area will overlap a portion of Mining Area which was previously permitted by Alpha Mining on their permit #807-5049. The permit has been completely released. The proposed overlaps will be bonded by this permit application. t.

8.9 Have credit acres been applied to the acreage fee amount? [ ] YES [***X***] NO. If "YES", list below the permit number, permittee name, acreage and amount. Attach copies of the bond release forms showing that those acreages were not disturbed. Identify attached documents as "Attachment 8.9.A, 8.9.B" etc. If additional pages are necessary, identify as "Item 8.9 continued".

PERMIT NUMBER	PERMITTEE NAME	UNDISTURBED ACREAGE	RATE PER ACRE	TOTAL

Total acreage fee credit $_____

8.10 If permittee name is different from applicant, submit a letter from the permittee granting the credit acres to the applicant.

N/A

8.11 Based upon all surface acres total to be disturbed under the proposed permit, provide an estimate of costs of reclamation. Attach detailed supporting calculations as "Attachment 8.11.A".

See Attachment 8.11.A.

9. Right of Entry

9.1 For all properties to be permitted by this application, complete the following chart for all surface and mineral owners. In the case of surface owners of severed estates which overlie underground works, but no surface disturbance is proposed, list n/a for type of document, grantor of rights, and date.

OWNER	TYPE OF DOCUMENT	GRANTOR OF RIGHTS	EXECUTION DATE	ACREAGE
Appolo Fuels, Inc.	***Lease***	***WWP LLC***	***6/01/2001***	***±2500***
Appolo Fuels, Inc.	***Lease***	***Givens Heirs***	***3/22/98***	***±876***
Appolo Fuels, Inc.	***Lease***	***Corrigan TLP LLC***	***6/01/2001***	***±2500***
Appolo Fuels, Inc.	***Lease***	***Bell County Coal Corp.***	***6/01/2001***	***±60.00***

Attachment 8.11.A

Appolo Fuels, Inc.
#807-0332, Amendment #1

Reclamation Cost Estimate

Topsoil Handling		per Yard	Per Acre	Acres		Cost	Total
		$0.50	$403.33	43.54		$17,561.13	$17,561.13
Backfilling And Grading		per Yard		Yards		Cost	Total
		$1.00		42,519		$42,519.00	$42,519.00
Revegetation	Seed Bed	per Hour	Per Acre	Acres		Cost	
		$50.00	$50.00	43.54		$2,177.00	
	Seeding		Per Acre	Acres		Cost	
			$80.00	43.54		$3,483.20	
	Mulching	per lb	Per Acre	Acres		Cost	
		$0.03	$90.00	43.54		$3,918.60	Total
	Lime	per Ton	Per Acre	Acres		Cost	$15,458.88
		$8.50	$1.70	43.54		$74.02	
	Fertilizer	per Ton	Per Acre	Acres		Cost	
		$289.00	$43.35	43.54		$1,887.46	
	Tree Planting	per 1000	Per Acre	Acres		Cost	
		$200.00	$90.00	43.54		$3,918.60	
Water Monitoring	Pond Sampling	per Sample	Sample Points	Years		Cost	
		$10.00	25	5		$15,000.00	Total
	WM Sampling	per Sample	Sample Points	Quarters		Cost	$16,000.00
		$10.00	5	20		$1,000.00	
Quarterly Pond Inspections		Inspection	Ponds	Years		Cost	Total
		$40.00	25	5		$20,000.00	$20,000.00
Pond Removal		per Pond	Ponds			Cost	Total
		$1,000.00	25			$25,000.00	$25,000.00
Reclamation Maintenance		per Acre	Acres	Years		Cost	Total
		$300.00	43.54	5		$65,310.00	$65,310.00
						Grand Total	
						$201,849.01	

W:\CLIENTS\AppoloFuels\807-0332\Amend-1\Comprehensive\Attachments\[ATT8-11.xlsx]Short Form

9.2 Explain the legal rights claimed by the applicant for the proposed permit area:
See Attachment 9.2.A

9.3 Are any rights to enter and mine the area, as claimed by the applicant, subject to any pending litigation? [ ] YES [***X***] NO

9.4 Have the private surface and mineral estates been severed for any parcel of land within the proposed permit area? [ ] YES [***X***] NO. If "YES", and the applicant proposes to extract coal by surface mining methods, one (1) of the following items shall be provided as part of this application:

(a) Notarized copy of the letter or a lease document from the surface owner(s) consenting to the use of surface mining methods to extract coal within the proposed permit area; or

(b) Notarized copy of the document of conveyance which originally severed the private surface and mineral estates and also expressly grants or reserves the right to extract coal by surface mining methods; or

(c) Notarized copy of a judicial order which expressly grants or reserves the right to extract coal by surface mining methods.

Is the order subject to pending litigation? [ ] YES [***X***] NO

Documents submitted in response to this requirement shall be identified as "Attachments 9.4.A., 9.4.B.", etc.

9.5 Describe any interest, options or pending bids on interest held or made by the applicant for lands which are contiguous to the proposed permit area. If additional pages are needed, identify as "Item 9.5 continued". ***None***

9.6 Is the proposed permit area within or adjacent to any lands where a federal agency owns either the surface or mineral rights? [ ] YES [***X***] NO.
If "YES", list the agency controlling such lands. Describe the location and boundaries of these lands with respect to the proposed permit area. If additional pages are needed, identify as "Item 9.6 continued".

_____
Agency

_____ ( )
Address Telephone Number

ATTACHMENT 9.2.A

The rights claimed by the applicant, Appolo Fuels, Inc. for the proposed permit area are based on a sale of the property from J.M. Huber Corporation to BLC Properties, LLC (7/5/01) to WWP, LLC (1/2/04) and a lease assignment to Appolo Fuels dated June 1, 2000. A lease with the Givens Heirs dated March 22, 1998. A lease with Givens Coal Company, Inc. dated March 22, 1998.

Appolo Fuels, Inc. has the right to enter, mine by surface, auger/highwall and underground mining methods, construct mine related facilities with the rights to ingress and egress the subject property containing over 2,500 acres. These rights are not subject to any pending litigation.

10. Notice of Intention to Mine

10.1 List the name of the newspaper of largest circulation in each county in which the proposed operation will be located.

COUNTY	NEWSPAPER
Bell	***Middlesboro Daily News***

10.2 Provide on a separate page immediately following this section the language of the "Notice of Intention to Mine" to be advertised in the newspaper(s) listed in Item 10.1 and identify as "Attachment 10.2.A.". In accordance with 405 KAR 8:030, or 8:040, a copy of each of the four newspaper advertisements or an affidavit from the newspaper editor(s) including a copy of the final advertisement shall be submitted to the department not later than 15 days after the date of the final advertisement. NOTE: The cabinet cannot complete the final processing and issuance of a mining permit unless and until all advertising requirements have been properly fulfilled by the applicant. Failure to submit accurate newspaper advertisements in a timely manner will result in the delayed issuance of a permit.
See Attachment 10.2.A.

11. Areas Designated Unsuitable for Mining & Requests for Variances

NOTE: Only those waivers and variances identified in this section will be considered for approval by the cabinet.

11.1 Is any part of the proposed permit area: [ ] within lands designated by the state as unsuitable for mining; [ ] under study for designation as such; [ ] within an area with special conditions as a result of a lands unsuitable study. If entire permit area is not designated unsuitable and not currently under study for such designation, check here [***XX***]. Attach DSMRE clearance letter as "Attachment 11.1.A."

11.2 Indicate if proposed surface mining and reclamation activities will occur on, or are adjacent to: [ ] national park system; [ ] national or state forest lands; [ ] national system of trails; [ ] national wilderness preservation system; [ ] wild and scenic rivers system, including "study" rivers; [ ] state wild rivers established pursuant to KRS 146; [ ] national recreation areas; [ ] public wildlife management area; and/or [ ] places listed in or eligible for listing in the National Register of Historic Places. If not, check here [***XX***].

ATTACHMENT 10.2.A

NOTICE OF INTENTION TO MINE
PURSUANT TO APPLICATION NUMBER 807-0332, AMENDMENT #1

1) In accordance with KRS 350.070, notice is hereby given that Appolo Fuels, Inc., P.O. Box 1727, Middlesboro, Kentucky, 40965, has applied for an amendment to an existing surface coal mining and reclamation operation located 0.68 miles Northwest of Middlesboro in Bell County. The amendment will add +43.54 acres of surface disturbance and underlie an additional +24.70 acres making a total area of 336.05 acres within the amended permit boundary.

2) The proposed amendment area is approximately 0.67 miles Northeast from Ky. 441's junction with Ky. 74 and located on Hignite Creek. The latitude is 36°36'52" N. The longitude is 83°46'55" W.

3) The proposed amendment is located on the Fork Ridge and Kayjay U.S.G.S. 7 1/2 minute quadrangle maps. The surface area to be disturbed by the amendment is owned by Corrigan TLP-LLC, C/O Molpus Woodlands Group LLC, Bell County Coal Corporation and Givens Heirs. The amendment will underlie land owned by the Givens Heirs and Corrigan TLP-LLC, C/O Molpus Woodlands Group LLC. The operation will use the contour, remining and auger methods of surface mining.

4) The application has been filed for public inspection at the Department for Natural Resources Middlesboro Regional Office, 1804 East Cumberland Avenue; Middlesboro, Kentucky 40965. Written comments, objections, or requests for a permit conference must be filed with the Director, Division of Mining Permits, #2 Hudson Hollow, U.S. 127 South, Frankfort, Kentucky 40601

(NOTE TO PUBLISHER: 4Th and final advertisement to include this additional paragraph)

This is the final advertisement of this application. All comments, objections or request for a permit conference must be received within thirty days of today's date.

11.3 Indicate if the proposed permit area is within: [***X***] 500' of known abandoned or active underground mines; [ ] 300' of a public park, public building, school, church, community or institutional building; [ ] 300' of an occupied dwelling; [ ] 100' of the outside right-of-way line of a public road; [***X***] 100' of a stream; [ ] 100' of a cemetery, or prehistoric burial ground. If not, check here [ ].

11.4 For each item checked in items 11.2 and 11.3 above, attach appropriate maps to identify the location and boundaries of the lands or facilities referenced. These attachments shall be identified as "Attachment 11.2.A." and "Attachment 11.3.A." respectively. Any required waiver documentation such as land owner consent or approval of appropriate state or federal agencies shall be attached. These attachments shall be identified as "Attachment 11.4.A., 11.4.B.", etc. Any engineering designs for Item 11.3 shall be submitted in other appropriate sections of this application.
See Attachment 11.4.A, See MRP Map for Locations

11.5 Indicate below all waivers and variances to be requested for the proposed operation. The acreage (or facility designation) affected should be provided as requested. Those variances which have been granted in previous applications to this permit should be marked with an [x] while those proposed or expanded as part of this application should be marked with an [*]. The documentation necessary to approve each variance requested as part of this application shall be submitted in the appropriate sections of this application.

[***X***] * Post mining land use change ***(X)157.17 + (*)43.54 = 200.71***
[***X***] * Alternate topsoil material for ***(X)157.17 + (*)43.54 = 200.71*** acres
[ ] Permanent pond #_____
[ ] AOC variance: remining for _____ acres
[ ] AOC variance: steep slope for _____ acres
[ ] AOC variance: mountaintop removal for _____ acres
[***X***] * Alternate contemporaneous reclamation standards
[*] Alternate contemporaneous reclamation standards for joint surface and underground operations
[ ] Mulching variance
[***X***] * Permanent road(s) #***"A", "B", "C", "E", "G", "I", "K", "M", "P", "Q", "R", "S", "T"&"AA"***
[***X***] Culvert spacing variance for roads #***"A", "B", "C", "O", "P", "Q", "R", "T"&"AA"***
[***X***] Grade variance for roads #***"A", "B", "C" & "R"***

OTHERS: ***[X*] Waiver to mine within 500 feet of known abandoned underground mine workings [X*] Prime farmland negative determination [X*] Waiver to mine within 0 feet of Long Branch, Unnamed Branch of Long Branch and Unnamed Branch of Hignite Creek, Fortner Branch and Rock Lick Branch of Stony Fork, Beans Fork and Unnamed Branch of Beans Fork***

11.6 If valid existing rights are claimed for any part of the proposed permit area identified in 11.1, 11.2, or 11.3, submit the required information as "Attachment 11.6.A".
N/A

ATTACHMENT 11.4.A

As part of the original and subsequent revision applications the following variances or waivers have been granted to this existing permit.

1) Waiver to surface mine within 500' of known abandoned underground mines.
2) Waiver for the use of alternate topsoil material for 111.89 acres.
3) Alternate contemporaneous reclamation standards.
4) Roads "A", "B", "C", "E", "G", "I", "K", "M", "P", "Q" and "R" to be retained as permanent facilities.
5) Culvert spacing variance for Roads "A", "B", "C", "O", "P", "Q" and "R" .
6) Grade variance for road "A", "B" "C", and "R".
7) Disturbance within 0 feet of Long Branch, Unnamed Branch of Long Branch and Unnamed Branch of Hignite Creek, Fortner Branch and Rock Lick Branch of Stony Fork, Beans Fork and Unnamed Branch of Beans Fork.
8) Prime farmland negative determination.

As a part of this application the following additions to the existing waivers or variances shall be requested.

1) Expand the existing waiver to surface mining with 500' of known abandoned underground workings on the west side of Long Branch.
2) Expand the waiver for the use of alternate topsoil for an addition 38.20 acres bring the total alternate topsoil acreage to 150.09 acres.
3) Waiver to retain roads "S", "T" and "AA" as permanent structures.
4) Culvert spacing variance for road "T" and "AA".

12 General Description of Mining and Reclamation Operations

12.1 Indicate the types of facilities to be constructed/utilized:

[X] Sediment ponds, no. 2
[ ] Fresh water ponds, no. _____
[ ] Levees, _____ ft.
[ ] Water treatment facilities
[X] Coal haulroads
[X] Access roads
[ ] Conveyors, _____ ft.
[ ] Rail loading facilities
[ ] Coal refuse fills
[ ] Coal slurry impoundments
[ ] Coal stockpiles
[ ] Excess spoil fills, no. _____
[ ] Hard rock/durable rock fills, no. _____
[ ] Deep mine entries, no. _____
[ ] Coal processing facilities
[X] Mine management and/or support areas
[ ] Loading facilities
[ ] Other _____

12.2 Provide a narrative description, identified as "Attachment 12.2.A.", of each phase of the proposed surface and underground mining operation. Include the anticipated starting and termination dates of each phase and/or increment, major equipment to be utilized, acreage affected in each phase, and the total acreage affected over the life of this permit. the narrative should describe the location and mitigation plans for any utility lines which will be encountered. If this application is an amendment, describe any changes to the mining plan proposed for the currently permitted area.

See Attachment 12.2.A.

12.3 Describe the plan for maximizing resource recovery. Provide as Attachment 12.3.A.

See Attachment 12.3.A.

13. Cultural or Historic Resources

13.1 List and describe any cultural or historic resources listed, or eligible for listing, on the National Register of Historic Places and any known archaeological sites within or adjacent to the proposed permit area. Provide under separate cover a description of the measures to be taken to mitigate adverse impacts to these sites and a map showing their location.

See Attachment 13.1.A

ATTACHMENT 12.2.A

Plan of Operation

The mining activity proposed in this amendment application will consist of additional contour strip and auger/highwall mining of the Sterling and Poplar Lick coal seams. This operation is located near the community of Middlesboro in Bell County in Hignite Creek on the Kayjay/Fork Ridge 71/2 Minute U.S.G.S. Map at Latitude 36-36-52 and Longitude 83-46-55 at the eastern most point of road intersection.

The following Non-Compliances will be addressed by this application to allow abatement of the non-compliances.

Non-Compliance 23-0919 issued October 2, 2008

This non-compliance was issued to both Appolo Fuels, Inc. and the permit operator, LC & C Energy, Inc., for allowing spoil material to spill onto unpermitted areas below the Poplar Lick coal seam near increment #7.

The two identified areas are just below the Poplar Lick coal elevation. It was concluded from the site inspections that larger than normal alluvial deposits existed in these areas and some minor movement occurred during the mining process. Immediately upon finding the sites, the operator attempted to retrieve all spoil that was practical and place the material back onto permitted areas. Silt fence was installed on the lower reaches of both areas for sediment control. The areas were then seeded and mulched in an effort to provide quick vegetative cover and stabilize the areas.

Non-Compliance 23-1847 issued June 4, 2009

This non-compliance was issued to both Appolo Fuels, Inc. and the permit operator, LC & C Energy, Inc. for several issues including water quality, contemporaneous reclamation, backfilling and grading, method of operation, off permit disturbance, disposal of excess spoil, sediment ponds, and the use of explosives and was the result of a comprehensive oversight of the permit by the Middlesboro Regional Office Manager, Mr. Kevin Hembree. After issuance of the non-compliance, a meeting was held with the permittee, operator, and representatives of HEG to detail the issues cited at the site and the remedial work to be performed in order to abate each item referenced in the non-compliance. The following details are being provided for each item noted in the non-compliance:

[1] The operator had placed a drain pipe in the access road to the active mining pit in Beans Fork and had breached the drainage control berm between ponds 15 and 16 in Beans Fork. Immediately after the inspector's meeting with the permittee and operator, the pipe was removed and the breach

ATTACHMENT 12.2.A

was repaired. Further, the permittee has instructed the operator that it is imperative that all surface water runoff from this permit flow through approved sediment control.

[2] The permittee's approved permit provided for an initial 1,500 feet of open highwall for this mining operation. The permit contains a variance to the contemporaneous reclamation standards that would allow for an increase in the open highwall limit up to 4,500 feet, provided supplemental assurance bond in the amount of 100,000 dollars be posted by the permittee with the Cabinet. This supplemental assurance bond had not been posted by the permittee at the time of the issuance of the non-compliance. Further, the operator was not aware that backfilled highwall areas were not deemed reclaimed until the areas had been graded and were ready for seeding. As a result of this oversight, the site had approximately 7,300 feet of unreclaimed highwall at the time of the non-compliance. Upon learning that the supplemental assurance bonds for this permit had not been posted, the permittee immediately obtained the required bonding and posted these supplemental assurance bonds with the Cabinet. The operator immediately began work on grading the backfilled highwall areas in order to meet the criteria of reclaimed areas. As of this date, the permit is in compliance with the 4,500 feet open highwall limit.

[3] The backfill areas of the permit contained rills and gullies in excess of approved regulations. As stated above, these areas were immediately graded and seeded to address this issue.

[4] The areas addressed under this item deal with several areas below the internal access road running through the mining area. After becoming aware of the situation, the permittee retained HEG to conduct field measurements of all areas backfilled in order to determine if these areas pass backfill stability. As of this date, all field work by HEG has been completed and these revised backfill sections are being incorporated into the pending Amendment #1 application that is currently in review by DMP. Once this permitting action is approved, the backfill sections can remain in their current configuration. Also addressed under this item were the method in which the trees removed from the permit area were windrowed at the lower edge of the permit boundary. Several of the trees were placed up and down the hill or were standing upright in the air instead of being placed parallel to the permit boundary. As of this writing, the operator has met with DMRE officials in Middlesboro and has formulated a plan that will allow for a small crane to be brought to the site to pick up the trees in question and replace them in the windrow area as per the approved plan. The use of this crane will minimize the disturbance of the backfilled areas in attempting to re-position the trees.

ATTACHMENT 12.2.A

[5] The permittee and operator were cited under this item for several off permit areas below the current approved permit boundary. The operator had also disturbed inside the current approved buffer limit on the Beans Fork stream crossing. The off permit areas had occurred as a result of the extreme wet weather that has occurred this Spring and Summer. This created several small slump areas that occurred below the approved permit boundary. In addition, the operator had disturbed with the 100 feet buffer limit when constructing the Beans Fork road crossing due to a slide that occurred from above the Poplar Lick coal level. The permittee and operator immediately stabilized the areas and seeded the areas to aid in stabilization. The affected areas have been mapped by HEG and are being incorporated into the pending Amendment #1 application.

[6] The spoil storage areas under this permit are very near completion, however, the top crest of the facilities were graded from the back to the front face of the facility and this resulted in allowing water to flow over the face of the areas. In addition, the final spoil placed into the storage areas had been graded near the tree clearing line and a small amount of spoil had been pushed into the tree line. After meeting with DMRE officials, the operator immediately began work to correct the slope of the crest of each spoil area to ensure that not water was flowing over the face of the fill and the spoil material in the tree line was retrieved. The operator is also working to finalize all outslopes and groin ditches to complete the construction on these spoil areas. Once complete, an as-built certification will be submitted to the Department.

[7] The permittee and operator had failed to maintain sediment ponds 8, 14, and 20 as per the design requirements in that these ponds exceeded their cleanout limits for sediment. The permittee and operator had also failed to construct pond 4 after mining through the designated pond location area. After notification of the problems, the operator immediately brought a specialty long-boom excavator to the site and began work on cleaning ponds 8, 14, and 20. The operator has also constructed pond 4 at the designed location. It should be noted that no sub-standard water was discharged from the permit as a result of this issue.

[8] The permittee and operator was cited for failure to submit a blast design for blasting within 1,000 feet of an occupied dwelling and 500 feet of an abandoned underground mine. Both the permittee and HEG understood that this design had been submitted by the original operator at this site (Robert Clear Coal Corporation) and this fact seems to be substantiated since Robert Clear Coal

ATTACHMENT 12.2.A

Corporation experienced at least one flyrock incident at this job site. The incident was investigated by Culhayne Nichols of DMRE with no mention that the permittee and operator had not submitted the blast design. Since Mr. Nichols and Mr. Bruce Cowan (blasting specialist in the Middlesboro Regional Office) have since retired and Robert Clear Coal Corporation is no longer the operator at the site, no one had a documented record that the required blast design was submitted to the Department. Immediately upon learning of the situation, an updated blast design was prepared and submitted to the Department.

Non-Compliance 23-1848 issued June 25, 2009

This non-compliance was issued to both Appolo Fuels, Inc. and the permit operator, LC & C Energy, Inc., for failure to stabilize surface road areas to prevent fugitive dust. This non-compliance was issued as a result of a citizen's complaint.

The operator was conducting normal mining operations in the Beans Fork watershed with spoil material being hauled from the active mine pit near pond 16 back to areas on the left side of Beans Fork to eliminate un-reclaimed highwall areas cited under non-compliance 23-1847. The operator had been applying water to the road surface throughout the day production shift. An approximate 1 hour idle time exists between the day and night shift production due to required maintenance and equipment inspection (in accordance with MSHA regulations). When spoil transportation resumed at the site, the road surface had dried to the point that it had become dusty. The water truck had been directed to resume watering until sundown and was in the process of obtaining a load of water to apply to the road when the representative of DMRE reached the site. Upon finding that the road surface was dusty, the non-compliance was issued since the site visit was the result of a citizen's complaint. Spoil transportation was suspended on the road section until the sufficient water had been applied to road to eliminate the dust problem.

The surface mining activity proposed in this application will be a continuation of the current contour mining operation. The initial spoil will be used to continue the current contemporaneous backfill and reclamation operation. The mining will continue uninterrupted as described and planned in the original permit application using the current on-site equipment as listed in the original application.

ATTACHMENT 12.2.A

Access to the mining from public access will be by existing roads A, B and C. The existing roads are in constant use and maintenance and will not require upgrading. All proposed sediment ponds will be located on the Poplar Lick coal level or the lowest coal seam mined.

Additionally this amendment will add three (3) sediment ponds #23, #24 and #25. These ponds will be on-bench dug-out structures and will provide sediment control for the additional contour mining area. Proposed sediment ponds #23, #24 and #25 will be constructed at their design location as detailed on the M.R.P. Map. Each pond will be constructed by excavating material from natural

ground in order to construct the pond. Once the pond excavation has been completed, the principal spillway will be installed and/or the emergency spillway will be constructed. The spillway will be checked for proper elevation and width. All spillways will be rip-rapped from the inlet side through the outlet. Rip Rap will either be obtained from this job site or will be purchased from a local quarry. It is anticipated that adequate amounts of durable rock generated during the surface mining activity will be available.

Non-Compliance 23-0921 issued January 3, 2009

Sediment pond #7 will be deleted as a part of this amendment application. A slide has occurred around the out slope of pond #7 and has threatened the integrity of the structure. This structure will be removed and reclaimed after the issuance of this amendment application. The drainage controlled by pond #7 will be routed to existing pond #6A. SEDCAD 4 design's for existing pond 6A have been provided to demonstrate the ability of existing pond 6A to control the additional drainage formerly controlled by pond #7 as it currently exist. The areas controlled by pond #6A and pond #7 have been mined and reclaimed and currently have a vegetative growth of zero to twenty four plus months. If necessary the drainage ditch will be re-graded to direct the flow into the end opposite of the discharge end of existing pond #6A. This will prevent short circuiting of the sediment control of existing pond 6A.

The slides (incidental disturbance) areas noted in the non-compliances will be added to the permit area by this amendment application. Surface material in these areas has slipped due to the excessive rains and the areas will be brought under permit by this application. These areas have been stabilized and seeded and mulched. Sediment control for these areas has been established by the use of silt fence and straw bales. Detail drawings have been provided in this attachment.

An additional road control zone is being added at the request of the DNR field inspector.

ATTACHMENT 12.2.A

This area is being added to comply with that request. All proposed areas have been shown with proposed permit boundary lines symbol on the MRP map.

Additionally, we are proposing to leave an underground mine face-up area. The proposed location has been shown on the MRP map.

All previously approved existing variances, waivers, blasting plans, mining plans and mining methods approved in the original and subsequent revisions will be carried forth and applied to this amendment application.

Since the inception, submittal and subsequent reviews of this application, additional slides have occurred as a result of the excessive precipitation that the permit areas have received in the previous months. These additional areas are being added to this application as Incidental Disturbance Areas #11, #12, #13 and #14. These areas have been delineated on the MRP map and individual detail drawings have been provided for each area in Attachment 25.1.A.

Additionally, as part of this application, we are proposing to delete existing pond #9 from this permit and to remove and reclaim the pond site in the field. In the judgment of the Department for Natural Resources Middlesboro Regional Office, the discharge from existing pond #9 is contributing to a slide area located below the mining areas. The slide is not contiguous to the permit boundary and **is not** proposed for permitting by this application. The sediment areas controlled by existing pond #9 were previously mined by this operation approximately twelve (12) months ago and have been reclaimed and seeded and currently have a heavy growth of vegetative cover. The areas controlled by existing pond #9 will be re-graded if necessary to direct the flow into existing pond #10. SEDCAD 4 designs have been provided for pond #10 with the additional areas added to the computer model. The pond #10 as-built configuration has been used in the provided SEDCAD 4 designs.

Notice of Non-compliance

Citizen's Complaint # N/A 23-0919
Page 1 of 1

Permittee Name: APPOLO FUELS INC **I.D. #** 000095

An inspection conducted on **10/02/2008** revealed that permit **807-0332** is in violation of approved provisions and/or regulations. The extent of the violation(s) and or remedial action(s) is as follows:

1 Code **OD** Regulation/Performance Standard **Off Permit Disturbance - KAR 7:040**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Operator has allowed rock and spoil material to spill on to non-permitted areas adjacent to increment # 7 below the poplar lick seam.

Violation occurred on Increment # **7** Bonded by Surety Name: **TRAVELERS CASUALTY & SURETY CO AMERICA** ID#: **0721**

☒ Violation Correctable – Remedial Measures to be performed:

Retrieve all possible rock and spoil material from the off permit areas. Submit within 60 days and obtain a permit action to include the off permit area as part of the permit.

You are ordered to correct the above violation by **4:30pm** on **10/31/2008**.

☐ Violation Non correctable – Because:

☐ Code ☐ Regulation/Performance Standard

☐ Permittee responsible for violation

☐ Permittee and operator ID#: responsible for violation.

Description of violation and location:

Violation occurred on Increment # Bonded by Surety Name: ID#:

☐ Violation Correctable – Remedial Measures to be performed:

You are ordered to correct the above violation by on .

☐ Violation Non correctable Because:

Env. Inspector:	Freddie Carmical	I.D. No:	020253	Date:	10/02/2008
Env. Control Supervisor:	Bruce Cowan	I.D. No:	020238	Date:	10/03/2008
Env. Control Manager:	Kevin Hembree			Date:	10/03/2008
Person On-Site To Whom Copy Was Delivered:	**Russell Miracle**	Signature:	[redacted]		
Person To Whom Copy Was Hand Delivered:		Signature:			
Certified Mail No.	**7005 1820 0004 6656 6970, 6987,6994**	Certified Date	**10/03/08**		
Contact Inspector at:	**606 248-6166** upon completion of remedial measures				

Notice of Non-compliance

Citizen's Complaint # N/A 23-0921

Page 1 **of** 1

P. .nittee Name: APPOLO FUELS INC **I.D. #** 000095

An inspection conducted on **02/03/2009** revealed that permit **807-0332** is in violation of approved provisions and/or regulations. The extent of the violation(s) and or remedial action(s) is as follows:

1 Code **OD** Regulation/Performance Standard **Off Permit Disturbance - KAR 7:040**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Slides have developed below pond # 7 and adjacent to pond #7 on the down slope of the permit .The slides are located in Rock lick branch on increment #5 adjacent to increments #6 and 11.

Violation occurred on Increment # **5** Bonded by Surety Name: **KY BOND POOL** ID#: **0392**
TRAVELERS CASUALTY SURETY CO ID#: **0001**

☒ Violation Correctable – Remedial Measures to be performed:

Obtain the issuance of the pending permitting action to include the off permit areas as part of the approved permit. Also retrieve all material possible and seed and mulch affected areas and install temporary silt control . Submit within 60 days and obtain a permitting action.

You are ordered to correct the above violation by **4:30pm** on **3/04/2009**.

☐ Violation Non correctable – Because:

2 Code **SC** Regulation/Performance Standard **Sedimentation Ponds - KAR 16:090**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Company has failed to maintain sediment pond #7 according to the approved permit plan. Slides have developed on the outslope face of pond #7 on increment #5.

Violation occurred on Increment # **5** Bonded by Surety Name: **KY BOND POOL** ID#: **0392**
TRAVELERS CASUALTY SURETY CO ID#: **0001**

☒ Violation Correctable – Remedial Measures to be performed:

Repair sediment pond #7 to the approved design and/or obtain the pending permitting action that will revise the Alternate sediment control plan. Submit within 60 days and obtain a permitting action.

You are ordered to correct the above violation by **4:30pm** on **03/04/2009**.

☐ Violation Non correctable – Because:

E ..spector: Freddie Carmical I.D. No: **020253** Date: **02/03/2009**

Env. Control Supervisor: Charles Hoskins I.D. No: **020239** Date: **02/04/2009**

Env. Control Manager: Kevin Hembree Date: **02/04/2009**

Person On-Site To Whom Copy Was Delivered: **Russell Miracle** Signature:

Person To Whom Copy Was Hand Delivered: Signature:

C. .d Mail No. **7008 1300 0001 9525 4511,4528,4535** Certified Date **02/05/09**

Contact Inspector at: **606 248-6166** upon completion of remedial measures

Notice of Non-compliance **Citizen's Complaint # N/A 23-1847**

Permittee Name: APPOLO FUELS INC **I.D. #** 000095

An inspection conducted on **06/04/2009** revealed that permit **807-0332** is in violation of approved provisions and/or regulations. The extent of the violation(s) and or remedial action(s) is as follows:

1 Code **WQ** Regulation/Performance Standard **Water Quality - KAR 16:070**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Permittee and Operator has failed to pass all surface drainage through approved sediment ponds. Operator had placed pipe in road and cut berm between ponds 15 and 16. They are large areas below road that does not drain to ponds on the entire permit and there is no diversions between ponds 1, 2, and 3.

Violation occurred on Increment # **3,4,5,6,7,8,9**

Bonded by Surety Name:

KY BOND POOL	ID#: **0392**
TRAVELERS CASUALTY & SURETY CO AMERICA	ID#: **0721**
TRAVELERS CASUALTY SURETY CO	ID#: **0001**
UNITED STATES FIDELITY AND GUARANTY	ID#: **0761**

☒ Violation Correctable – Remedial Measures to be performed:

Immediately remove pipe from road between ponds 15 and 16. Provide temporary sediment control for area below roads that won't drain to ponds and submit within 60 days and obtain revision to get alternate sediment control approved. Construct diversions between ponds 1, 2, 3, and 4 to ensure all drainage passes through approved pond before it leaves permitted area.

You are ordered to correct the above violation by **8:00 am** on **06/09/2009**.

☒ Violation Non correctable – Because:

Water has already left permit area without passing through approved sediment control.

2 Code **CR** Regulation/Performance Standard **Contemporaneous Reclamation - KAR 16:020**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Company and operator has exceeded distance approved in permit. They have over 7300 ft of wall not completely reclaimed and are only approved for 1500 ft.

Violation occurred on Increment # **3,4,7,8,9**

Bonded by Surety Name:

KY BOND POOL	ID#: **0392**
TRAVELERS CASUALTY & SURETY CO AMERICA	ID#: **0721**
UNITED STATES FIDELITY AND GUARANTY	ID#: **0761**

☒ Violation Correctable – Remedial Measures to be performed:

Company shall cease creating any more wall until highwall has been reclaimed to distance approved in permit. This includes complete highwall elimination and final grading.

You are ordered to correct the above violation by **4:00pm** on **07/04/2009**.

☐ Violation Non correctable – Because:

Env. Inspector: Kevin Hembree I.D. No: **020234** Date: **06/08/2009**

Env. Control Supervisor: Scott Cox Date: **06/09/2009**

Env. Control Manager: Kevin Hembree Date: **06/10/2009**

Person On-Site To Whom Copy Was Delivered: Signature:

Person To Whom Copy Was Hand Delivered:		Signature:	
Ce 1 Mail No.	**7008 3230 0002 9908 4829,4836,4843**	Certified Date	**06/10/09**
Contact Inspector at:		upon completion of remedial measures	

Notice of Non-compliance **Citizen's Complaint # N/A 23-1847**

Permittee Name: APPOLO FUELS INC **I.D. #** 000095

An inspection conducted on **06/04/2009** revealed that permit **807-0332** is in violation of approved provisions and/or regulations. The extent of the violation(s) and or remedial action(s) is as follows:

3 Code **BG** Regulation/Performance Standard **Backfilling and Grading - KAR 16:190**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Rills and gullies have formed in backfill deeper than 9 inches and are still causing erosion.

Violation occurred on Increment # **3,5,6** Bonded by Surety Name:

KY BOND POOL	ID#: **0392**
TRAVELERS CASUALTY & SURETY CO AMERICA	ID#: **0721**
TRAVELERS CASUALTY SURETY CO	ID#: **0001**

☒ Violation Correctable – Remedial Measures to be performed:

Regrade stabilize seed and mulch all rills and gullies.

You are ordered to correct the above violation by **4:00 pm** on **07/04/2009**.

☐ Violation Non correctable - Because:

4 Code **OM** Regulation/Performance Standard **Method of Operation - KAR 8:010**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Company has failed to follow approved backfilling and grading plan approved in permit. Slopes below road are to steep. Company has also not properly windrowed trees on outside of permit.

Violation occurred on Increment # **3,4,5,6,7,8,9** Bonded by Surety Name:

KY BOND POOL	ID#: **0392**
TRAVELERS CASUALTY & SURETY CO AMERICA	ID#: **0721**
TRAVELERS CASUALTY SURETY CO	ID#: **0001**
UNITED STATES FIDELITY AND GUARANTY	ID#: **0761**

☒ Violation Correctable – Remedial Measures to be performed:

Regrade slopes to approved grades approved in permit or submit within 60 and obtain revision to change slopes. Properly windrow trees along out side of permit area.

You are ordered to correct the above violation by **4:00 pm** on **07/04/2009**.

☐ Violation Non correctable – Because:

Env. Inspector: E-Signed by Kevin Hembree VERIFY authenticity with Approvelt Kevin Hembree I.D. No: **020234** Date: **06/08/2009**

Env. Control Supervisor: E-Signed by Scott Cox VERIFY authenticity with Approvelt Scott Cox Date: **06/09/2009**

Env. Control Manager: E-Signed by Kevin Hembree VERIFY authenticity with Approvelt Kevin Hembree Date: **06/10/2009**

Person On-Site To Whom Copy Was Delivered: Signature:

Person To Whom Copy Was Hand Delivered: Signature:

Certified Mail No. **7008 3230 0002 9908 4829,4836,4843** Certified Date **06/10/09**

Contact Inspector at: upon completion of remedial measures

Notice of Non-compliance **Citizen's Complaint # N/A 23-1847**

Permittee Name: APPOLO FUELS INC **I.D. #** 000095

An inspection conducted on **06/04/2009** revealed that permit **807-0332** is in violation of approved provisions and/or regulations. The extent of the violation(s) and or remedial action(s) is as follows:

---

7 Code **SC** Regulation/Performance Standard **Sedimentation Ponds - KAR 16:090**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Company has failed to maintain sediment ponds 8,14, and 20. ponds have exceeded cleanout elevations. Company has also failed to construct pond 4 after mining area.

Violation occurred on Increment # **3,6,8**

Bonded by Surety Name:	
KY BOND POOL	ID#: **0392**
TRAVELERS CASUALTY & SURETY CO AMERICA	ID#: **0721**
TRAVELERS CASUALTY SURETY CO	ID#: **0001**

☒ Violation Correctable – Remedial Measures to be performed:

Dip ponds 8,14 and20 to a level below the designed clean out elevation and dispose of sediment according to approve plan. Construct pond 4 and certify according to the approved design.

You are ordered to correct the above violation by **4:00 pm** on **07/04/2009**.

☐ Violation Non correctable – Because:

---

8 Code **UE** Regulation/Performance Standard **Use of Explosives - KAR 16:120**

☐ Permittee responsible for violation

☒ Permittee and operator **LC&C ENERGY, INC** ID#: **014584** responsible for violation.

Description of violation and location:

Company failed to submit blast design before blasting within 1000 ft of occupied dwelling and 500 ft of abandoned underground deep mine.

Violation occurred on Increment # **3,4,5,6,7,8,9**

Bonded by Surety Name:	
KY BOND POOL	ID#: **0392**
TRAVELERS CASUALTY & SURETY CO AMERICA	ID#: **0721**
TRAVELERS CASUALTY SURETY CO	ID#: **0001**
UNITED STATES FIDELITY AND GUARANTY	ID#: **0761**

☒ Violation Correctable – Remedial Measures to be performed:

Cease all blasting within 1000 ft of occupied dwelling and 500 ft of abandoned deep mine until blast design has been submitted and approved.

You are ordered to correct the above violation by **4:00 pm** on **07/04/2009**.

☒ Violation Non correctable – Because:

Blasting has already occurred within 1000 ft of occupied dwelling and 500 ft of abandoned deep mine.

Env. Inspector: Kevin Hembree I.D. No: **020234** Date: **06/08/2009**

Env. Control Supervisor: Scott Cox Date: **06/09/2009**

Env. Control Manager: Kevin Hembree Date: **06/10/2009**

Person On-Site To Whom Copy Was Delivered: Signature:

Person To Whom Copy Was Hand Delivered: Signature:

Certified Mail No. **7008 3230 0002 9908 4829,4836,4843** Certified Date **06/10/09**

Contact Inspector at: [ ] upon completion of remedial measures

ATTACHMENT 12.3.A

Maximum Resource Recovery Plan

As detailed previously in this application, the mining activity proposed in this application will includes surface contour and highwall/auger mining activity on the Poplar Lick coal seam. We will provide in this attachment the general plan for maximizing the resource recovery proposed in this permit.

The surface mining activity proposed in this application will use the surface contour and highwall auger mining methods of mining. The remining will provide a secondary excavation on the existing bench on the coal seam. The mining activity proposed in this application will remove the maximum volume of overburden and coal as is determined by current economic conditions. Removal from all of the coal via this method will extract perimeter coal which would not be accessible by underground mining methods. The mining activity described above will utilize the best technology currently available to insure complete and efficient removal of the remaining reserves in this seam that were not previously extracted by underground and contour/auger mining during past mining operations.

14. Fish and Wildlife Information

14.1 Has any threatened or endangered species or the critical habitat of such species been identified within or adjacent to the proposed permit area?
[ ] YES [***XX***] NO. If "No", attach DSMRE documentation to verify this determination. Identify as "Attachment 14.1.A".
See attachment 14.1.A

14.2 If the answer to 14.1 is "YES" or a threatened or endangered species or critical habitat has been reported within or adjacent to the proposed permit area, list the species involved and provide a map identifying its location relative to the proposed permit area. Identify as "Attachment 14.2.A".
N/A - This amendment

14.3 Will any "wetland" area be impacted by the proposed operation?
[ ] YES [***XX***] NO.

If "YES", provide acreage of wetland, and delineate its boundaries on the ERI Map.
Acreage of wetland ***N/A***

14.4 Provide as "Attachment 14.4.A", the results of any fish and wildlife survey conducted for the proposed area, or other studies required by DSMRE.
N/A - This Amendment.

14.5 Provide a description of the measures which will be taken to avoid or minimize adverse impacts to wetland areas, important fish and wildlife species, the critical habitat of such species, or other species protected by state or federal law. If additional pages are needed, identify as "Item 14.5 continued".
See Attachment 14.5.A

15. Geologic Information

15.1 Provide the information requested below concerning the coal seam(s) to be mined:

USGS Name	Thickness (inches)	% Total Sulfur	% Pryite Sulfur	Elevation
Sterling	***12"-28"***	***0.87%***		***2020'-2190'***
Polar Lick	***24"-48'***	***1.14%***		***1980'-2150'***

15.2 Provide a description of the geology within the proposed permit area down to and including the stratum immediately below the lowest coal seam to be mined. The description shall include the structural geology, lithology, thickness and chemical characteristics of the overburden strata which will be removed and strata which may be impacted in areas overlying underground works. Include the results of the baseline geologic sampling program on cabinet approved forms and all appropriate drill logs, stratigraphic columns, cross sections, geochemical lab results and other information on which the description is based. Submit description and related information as "Attachment 15.2.A, 15.2.B", etc.
N/A - No additional geology proposed this amendment.

ATTACHMENT 14.5.A

It is not anticipated that the surface disturbances proposed in this application will adversely affect or impact any wetlands, important fish and wildlife species or other species protected by state or federal law.

15.3 Do aquifers exist within the proposed permit area below the lowest coal seam to be mined, which may be adversely affected by the mining operation?
[ ] YES **[XX]** NO. If "YES", describe the structural geology, lithology and thickness of each stratum from the lowest coal seam to be mined to such aquifers. Submit description and related information as "Attachment 15.3.A".

15.4 Describe all aquifers located within and adjacent to the proposed permit area which the mining operation may adversely impact. Identify the description as "Attachment 15.4.A". At a minimum, the description shall include, for each aquifer, the following information:

Aquifers within the permit area

(a) aquifer identification,
(b) top elevation,
(c) lithology,
(d) thickness,
(e) areal extent,
(f) number of users, and
(g) structural geology

Aquifers adjacent to the permit area

(a) approximate areal extent
(b) approximate thickness
(c) aquifer identification, and
(d) number of users

Correlate this information with the cross-section required in Item 15.2.
See Attachment 15.4.A

15.5 Provide, as "Attachment 15.5.A", a volume weighted acid-base account of all overburden strata to be removed by the proposed mining operation.
N/A - No additional geology proposed this amendment.

15.6 Describe the sampling program used for collection of premining geologic data within the proposed permit area. The description shall identify; (a) method of sample collection: (b) vertical sampling frequency; (c) parameters tested; (d) laboratory methods used, and (e) name of laboratory. Submit the description as "Attachment 15.6.A".
N/A - No additional geology proposed this amendment.

15.7 Provide the following information for each geologic sampling location. If additional pages are needed, identify as "Item 15.7 continued".

Site No.	Type (core, rotary, etc.)	Surface Elevation	Total Depth	Latitude	Longitude

NOTE: Show the location of each geologic sampling site on the ERI Map.

N/A - No additional geology proposed this amendment.

ATTACHMENT 15.4.A

Aquifer Description

The proposed surface disturbance area proposed in this application is located in the Cumberland Mountain Section of Eastern Kentucky. The Cumberland Mountain Section is comprised of two parallel mountain ridges running generally to the Northeast. Between the ridges lies a rugged hilly area similar in topography to the Kanawha Section, but which has much greater relief. Level areas most suitable for residential or commercial use are essentially limited to the valley bottoms along the stream beds. As a result, nearly all wells are situated in the valley bottoms. Rock strata in this area generally yield sufficient supplies of water for domestic use.

Ground water in the vicinity can generally be obtained from three potential sources. These sources are perched aquifers, the alluvium, or the strata of the Hance formation.

Perched aquifers are essentially created by the extraction of coal seams using underground mining methods which leave voids that fill with water. Perched aquifers exist in the general area due to extensive past mining of most of the coal seams in the vicinity. Although the areal extent of the coal seam voids and addendum perched aquifers are limited because of topography, it is possible for this source of ground water to exist in the area.

The alluvium lies along the streams in the valley bottoms and is identified as a potential aquifer. It has the potential to produce in excess of 500 gpd to drilled wells where granular material is present in sufficient permeated thicknesses. Wells in the general vicinity which penetrate these saturated areas will provide adequate quantities of water for modern domestic uses or a small municipal water supply.

The strata of the Hance Formation are present below the valley bottoms. These formations are capable of providing an ample source of water for modern domestic or a small municipal water supply.

16. Ground Water

16.1 Provide the results of the ground water inventory conducted for the proposed permit and adjacent areas. The inventory shall identify wells, springs, underground mines, or other similar ground water supply facilities which are currently being used, have been used in the past, or have a potential to be used. For each supply source, describe the location, ownership, type of use and where possible other relevant information such as the depths and diameters of wells, approximate rate of usage, pumpage or discharge. Provide results as "Attachment 16.1.A".

N/A - No additional ground water inventory proposed this amendment.

16.2 Describe the premining ground water monitoring program used to determine the seasonal variations in ground water quality and quantity for all aquifers and water transmitting zones. At a minimum, six months of data shall be collected. The description shall identify the location and construction specifications of each monitoring point used, parameters tested, and laboratory methods used. Submit the description as "Attachment 16.2.A".

N/A - No additional ground water monitoring points proposed this amendment.

16.3 On approved cabinet forms submit the results of the premining ground water monitoring program. Original or notarized copies of all laboratory analyses shall be provided. Submit this information as "Attachment 16.3.A".

N/A - No additional ground water monitoring points proposed this amendment.

17. Surface Water

17.1 Major Watershed(s) Affected:

[ ]	Big Sandy River (BS)	[ ]	Mississippi River (MS)
[X]	Cumberland River, Upper (CU)	[ ]	Ohio River (OH)
[ ]	Cumberland River, Lower (CL)	[ ]	Salt River (ST)
[ ]	Green River (GR)	[ ]	Tennessee River (TN)
[ ]	Kentucky River (KY)	[ ]	Tradewater River (TW)
[ ]	Licking River (LC)	[ ]	Tygarts Creek (TG)
[ ]	Little Sandy River (LS)		

17.2 Identify on the environmental resources map and provide a narrative description of the immediate watershed(s) receiving discharge from the proposed permit area. Describe any existing facilities or conditions within the watershed(s) (e.g. existing mining operations, abandoned surface or underground mines, logging operations, oil or gas exploration sites or wells, etc.) which may contribute to surface water pollution. Provide the description as "Attachment 17.2.A". On the ERI map, indicate the location of any existing discharges resulting from such facilities or activities.

N/A - No changes proposed this amendment.

17.3 Provide as "Attachment 17.3.A", the results of the surface water user inventory for the proposed permit and adjacent areas. This inventory shall identify the name of the surface water boundary being used as a water supply source, the location, drainage area, ownership, type of usage, and where possible, other relevant information such as the rate of withdrawal and seasonal variation.

N/A - No additional surface water user inventory proposed this amendment.

17.4 Describe the premining surface water monitoring program used to determine the seasonal variations in surface water quality and quantity. At a minimum, six months of data shall be collected. The description shall identify the location of each monitoring point, parameters tested, and laboratory methods used. Submit the description as "Attachment 17.4.A".
N/A - No additional surface water monitoring points proposed this amendment.

17.5 On cabinet approved forms submit the results of the premining surface water monitoring program. Original or notarized copies of all laboratory analyses shall be provided. Submit this information as "Attachment 17.5.A".
N/***A - No additional surface water monitoring points proposed this amendment.***

18. Determination of Probable Hydrologic Consequences

18.1 Provide as "Attachment 18.1.A", a determination of the probable hydrologic consequences (PHC) which the proposed mining operation will have on both surface water and ground water systems within the proposed permit area and adjacent areas. The contents of the determination shall conform to the requirements of 405 KAR 8:030, Section 32 (surface mine) or 405 KAR 8:040, section 32 (underground mine).
See Attachment 18.1.A.

18.2 Provide as "Attachment 18.2.A", a detailed description of the protective measures to be taken as part of the mining and reclamation operations to ensure compliance with 405 KAR 16:060 Sections, 1, 2, 3, 4, 5, 6, 8, 9, 12, and 405 KAR 16:080 (surface mine) or 405 KAR 18:060, Sections 1, 2, 3, 4, 5, 7, and 405 KAR 18:080 (underground mine). Detailed designs of protective measures shall be presented in other pertinent sections of this application.
See Attachment 18.2.A.

19. Alternate Water Supply Information

19.1 Describe the extent to which the proposed mining activities may approximately result in the contamination, diminution, or interruption of underground or surface sources of water within the proposed permit or adjacent areas which are used for domestic, agricultural, industrial or other beneficial uses. This description shall be noted as "Attachment 19.1.A".
See Attachment 19.1.A.

19.2 If contamination, diminution, or interruption may result, identify and describe the adequacy of the alternate source of water supply that could be developed. Provide this information as "Attachment 19.2.A". NOTE: The submission of the information required in Attachment 19.2.A is optional for underground mine applicants.
See Attachment 19.2.A.

ATTACHMENT 18.1.A

Probable Hydrologic Consequences

As detailed previously in this application, much of the area where the proposed mining activity is located has been extensively mined by surface and underground mining activities.

Since additional mining activities, by contour strip and auger/highwall mining methods, are proposed it is possible that the new mining activity could have adverse short-term and long-term effects on both surface and ground waters. For this reason the possible effects of the mining activity will be discussed.

Surface disturbances associated with the mining activity could possibly produce the following short term adverse effects on the surface waters downstream of the proposed operation:

1) Reduction of quantity of water supply.
2) Increase peak flows.
3) Increased sedimentation.
4) Acid or toxic drainage from the coal in the stock pile area.

Each of these possible effects will be discussed in detail. During the "Groundwater User Survey" any users of surface water located downstream of the disturbed area within a watershed which is five (5) times the drainage area affected by the mine site were identified.

There were no users of surface water located in this affected area. However, based on these finding, the mining activity proposed as part of this application will not have any adverse effects on any water supply which uses surface water.

As detailed above, new surface disturbances associated with the proposed mining activities will not pose a hazard of flooding prior to any construction of the sedimentation device. The sediment pond will be constructed downstream of the mining activity to receive surface drainage from the mine areas. After construction of the sediment ponds the hazard of flooding will still not exist.

All surface disturbances described in this application will generate additional sediment. For this reason, all surface runoff from the surface disturbances associated with the mining activity will be passed through a sedimentation pond prior to being discharged back into the stream. The sediment ponds will be designed to meet all applicable effluent standards, 0.5 ml/l settleable solids, etc., under the permanent program regulations. Complete details of these

ATTACHMENT 18.1.A

designs have been provided in this application. Also, a maintenance plan providing for cleaning of the ponds to insure that the ponds effluent will continually meet the effluent standards has been provided in Attachment 31.5.A of this application.

Acid-base calculations from the geologic sampling program indicate that the spoil which will be generated during the development of the mining activities will not produce acid or toxic drainage. In order to prevent any long term treatment situation for any acid drainage all coal will be removed from the pit as soon as possible after the coal has been uncovered to prevent the creation of an acid discharge. The coal seam will be covered a with a minimum of four (4') feet of non-toxic backfill material as soon as possible after auger operations have been completed so as not to allow the exposed coal seam to weather and possibly create an acid mine discharge. Any acid discharges in the area are isolated incidents and were caused by the piping of water through exposed coal that was not properly removed or covered properly. By following the above procedure any acid mine drainage should be avoidable.

Our research and field investigations have identified two (2) aquifers in the vicinity of the proposed permit area. These aquifers are identified as the Alluvium and the Hance Formation. It is not anticipated that the mining activity proposed in this application could have any adverse effects on these aquifers.

The only possible effects of the mining activity on these aquifers would be infiltration of surface water into the groundwater system which elevates iron and manganese levels. These changes might not even be noticeable and would disappear after mining has been completed.

ATTACHMENT 18.2.A

Description of Protective Measures

As stated in Attachment 18.1.A, the contour strip and auger mining activities proposed in this application should not have any effects on the surface waters. However, the following will be implemented as a preventative measure to prevent any adverse effects on surface waters:

1) Surface runoff from above the permit area and from the permit area itself will be routed into natural drainage by the construction of berms along the outside edge of the lowest coal seam to be mined.

2) The surface of the permit area will be sloped and graded, to the extent possible, to enhance sheet flow and reduce flow velocity of surface runoff to reduce fill erosion and prevent excessive erosion.

3) Each diversion ditch, if necessary, will be properly maintained to meet the performance standards.

4) All surface runoff will be routed into an approved sediment control device such that the discharge from this structure will meet all applicable effluent performance standards.

5) Toxic strata which might be encountered during the surface mining activity will be handled or disposed of as detailed in Attachment 29.2.A of this application.

6) The highwall will be completely eliminated and the spoil used in the backfilling is not acid or toxic producing.

7) All roads will be maintained with crushed limestone or other durable material.

8) The entire site will be graded to promote drainage and prevent ponding of water which might create toxic or acid drainage.

All surface drainage from the proposed permit area will be directed into a sediment control pond prior to leaving the permit area. The measures taken to protect the surface waters at this site will also provide protection for the groundwater in the area.

ATTACHMENT 19.1.A

EXTENT TO WHICH MINING ACTIVITIES MAY RESULT IN THE CONTAMINATION, DIMINUTION OR INTERUPTION OF WATER

The proposed mining activities will not result in the contamination, diminution or interruption of underground or surface sources of water within the proposed permit or adjacent areas which are used for domestic, agricultural, industrial or other beneficial uses due to the following:

a) Extensive underground and surface mining has previously occurred within the watersheds pertinent to application, without any apparent detrimental effect to water sources.

b) Contamination will not occur due to the absence of a potential to produce acid drainage, controlling sediment structures and during-mining monitoring to identify and correct any detrimental impacts, should any occur.

c) Diminution/interruption will not occur due to the operation not affecting the method of groundwater recharge and transmittal (fracturing).

ATTACHMENT 19.2.A

It is not anticipated that the activities proposed in this application will have any adverse effects on any surface or ground sources of water. However, since mining activities are proposed, it is possible that surface water or groundwater sources could possibly be affected. If replacement of a domestic water supply is required by the Cabinet a water supply will be provide a temporary and permanent basis as follows. Within forty-eight (48) hours after receiving notice from the cabinet that the water supply was adversely impacted by mining, provide drinking water on an emergency basis. Within two (2) weeks after receiving notice from the cabinet that the water supply was adversely impacted by mining, provide a temporary water supply connected to the existing plumbing, if any, that provides water for all ordinary household purposes including drinking, cooking, bathing, sanitation and laundry and drinking water for poultry, livestock and domestic animals and water for noncommercial domestic agricultural and horticultural activities. Within two (2) years after receiving notice from the cabinet that the water supply was adversely impacted by mining, provide a satisfactory permanent water supply.

The following sources of water could be developed to replace any source of water which might be adversely affected by operation:

1) Cisterns: Individual residences could be provided with cisterns of adequate capacity to provide ample water supply. There is adequate rainfall within this area to allow the use of cisterns.

2) Deep Wells: The existing wells or new wells could be drilled to lower depths. The casings in these wells could be extended and the outside of the well casing could be grouted to seal off any water from seeping down into the well.

4) A chemical treatment system to clarify contaminated water could be provided for any source of water which might be adversely affected by this operation.

5) Stream channels could be cleaned in the event of heavy sedimentation or reconstructed in the event of cracks to enhance the surface water flow of the watershed.

20. Prime Farmland Investigation

20.1 Based upon the applicant's review of relevant information and the performance of an on-site investigation of the permit area, the applicant proposes a negative determination on ***43.92*** acres of this permit. This request is based upon the following:

[X] ***43.92*** acres should not be considered prime farmland due to the slope being greater than 10% or the soil is very rocky, or the area floods during a growing season more than once every two years thus reducing crop yields, etc. Documentation demonstrating this assertion is submitted as Attachment 20.1.A.
See Attachment 20.1.A

[ ] _____ acres should not be considered prime farmland as it has not been historically used as cropland. The standard departmental surface owner and third party affidavits are submitted as "Attachment 20.1.B and 20.1.C". Applicant should provide a narrative explaining why the acreage as not been farmed. This narrative should reference the history of nearby and adjacent lands.

[ ] _____ acres should not be considered prime farmland as demonstrated by the following U.S. Soil Conservation Service statement. The land designated on the USGS topographic map attached to permit application no. _____ has

[ ] no prime farmland soils
[ ] some prime farmland soils
[ ] all prime farmland soils

Name _____ Title _____

Signature _____ Date _____

20.2 For applicants claiming an exemption from prime farmland reconstruction submit proper documentation as "Attachment 20.2.A" to demonstrate that a permit has been obtained prior to August 3, 1977, or that the other requirements of 405 KAR 8:050, Section 3, have been met.
N/A

20.3 Identify the acreage of prime farmland acreage to be restored. Provide as "Attachment 20.3.A" the prime farmland restoration plan.
N/A

21. Land Use Information

21.1 Describe the capability of the proposed permit area, before any mining, to support a variety of land uses. Consideration shall be given to soil and foundation, topography, vegetative cover and hydrology. Submit as "Attachment 21.1.A".
See Attachment 21.1.A.

ATTACHMENT 20.1.A

Based on the U.S.G.S. topographical map, and field investigation the areas proposed by this original permit application are located on slopes greater than ten (10%) percent.

Signature, Timothy C. Howard, P.E.

ATTACHMENT 21.1.A

The land use of this site prior to mining activity was forestry. The land is not suited to any other type of land use. The relatively steep slopes of the land, along with lack of access to the site, prevented the development of any type of land use including cropland, recreational, water resources, residential or industrial/commercial.

21.2 Provide an estimate of the permit area's potential productivity expressed in average of food, fiber, forage, or wood products. Provide as "Attachment 21.2.A".

See Attachment 21.2.A.

21.3 Describe the existing uses of the lands adjacent to the proposed permit areas and identify any local land use classifications of the proposed permit area. Submit as "Attachment 21.3.A".

See Attachment 21.3.A.

21.4 Describe the consideration which has been given to making the proposed postmining activities consistent with surface owner plans and applicable state and local land use plans and programs. Submit as "Attachment 21.4.A".

See Attachment 21.4.A

21.5 Attach copies of the comments concerning the proposed postmining land use from legal or equitable owner of record of the surface area to be affected. Also, attach any comments from federal, state, and local government agencies which would have to initiate, implement, approve, or authorize the proposed land use following reclamation. Submit as "Attachment 21.5.A, 21.5.B" etc.

See Attachment 21.5.A

21.6 Indicate existing land uses within the proposed permit area:

[***XX***] Forestland (40	***43.92*** ac.	[ ] Developed Water Resources (53)	_____ ac.
[ ] Pastureland (20)	_____ ac.	[ ] Residential (11)	_____ ac.
[ ] Cropland (21)	_____ ac.	[ ] Industrial/ Commercial (13)	_____ ac.
[ ] Fish and Wildlife (01)	_____ ac.	[ ] Undeveloped (60)	_____ ac.
[ ] Recreation (02)	_____ ac.		
[ ] Mined Lands (30)	_____ ac.		

Clearly delineate on the Environmental Resources Map, the boundaries of each land use checked above.

21.7 If active coal mining is being conducted within the proposed permit area or if previous mining has been conducted within the proposed permit area, provide the following information: If not applicable, check here [***XX***].

Premining Land Use(s)	Acres
_____	_____
_____	_____
_____	_____

21.8 If any land use (other than mining) has been in existence less than five years prior to the date of this application, describe the historic land use. Submit this description as "Attachment 21.8.A". If not applicable, check here [***XX***].

21.9 If previous mining has occurred within the proposed permit area, describe the type of mining used, coal seam or other strata mined, area extent of such mining, and approximate dates of the disturbances. Submit as "Attachment 21.9.A". All areas of prior disturbance shall be shown on the MRP Map. If not applicable, check here [***XX***].

ATTACHMENT 21.2.A

As the pre-mine land use of the site is Forestry, the productivity and average yield of the area will be discussed as woodland. The following information was obtained from the Soil Conservation Service in the "Soil Survey of Bell and Harlan Counties, Kentucky", December 1992.

We present the following discussion concerning Woodland Management and Productivity.

Soils vary in their ability to produce trees. Available water capacity and depth of the root zone have major effects on tree growth. Fertility and texture also influence tree growth. Elevation, aspect, and climate determine the kinds of trees that can grow on a site. Elevation and aspect are of particular importance in mountainous areas.

This soil survey can be used by woodland managers planning ways to increase the productivity of forest land. Some soils respond better to applications of fertilizer than others, and some are more susceptible to landslides and erosion after roads are built and timber is harvested. Table 8 summarizes the forestry information and rates the soils for a number of factors to be considered in management. Slight, moderate, and severe are used to indicate the degree of the major soil limitations to be considered in forest management.

Ratings of the erosion hazard indicate the probability that damage may occur if site preparation of harvesting activities expose the soil. The risk is slight if no particular preventive measures are needed under ordinary conditions; moderate if erosion-control measures are needed for particular silvicultural activities; and severe if special precautions are needed to control erosion for most silvicultural activities. Ratings of moderate or severe indicate the need for construction of higher standard roads, additional maintenance roads, additional care in planning harvesting and reforestation activities, or the use of special equipment.

Ratings of equipment limitation indicate limits on the use of forest management equipment, year-round or seasonal, because of such soil characteristics as slope, wetness, stoniness, or susceptibility of the surface layer to compaction. As slope gradient and length increase, it becomes more difficult to use wheeled equipment. On the steeper slopes, tracked equipment is needed. On the steepest slopes, even tracked equipment cannot be operated and more sophisticated systems are needed. The rating is slight if equipment use is restricted by soil wetness for less then 2 months and if

special equipment is not needed. The rating is moderate if slopes are so steep that wheeled equipment cannot be operated safely across the slope, if wetness restricts equipment use from 2 to 6 months per year, if stoniness restricts the use of ground-based equipment, or if special equipment is needed to prevent or minimize compaction. The ratings is severe if slopes are so steep that tracked equipment cannot be operated safely across the slopes, if wetness restricts equipment use of more than 6 months per year, if stoniness restricts the use of ground-based equipment, or if special equipment is needed to prevent or minimize compaction. Ratings of moderate or severe indicate a need to choose the most suitable equipment and to carefully plan the timing of harvesting and other management activities.

Ratings of seedling mortality refer to the probability of the death of naturally occurring or properly planted seedlings of good stock in periods of normal rainfall, as influenced by kinds of soil or topographic features. Seedling mortality is caused primarily by too much water or too little water. The factors used in rating a soil for seedling mortality are texture of the surface layer, depth to a seasonal high water table and the length of the period when the water table is high, rock fragments in the surface layer, rooting depth, and the aspect of the slope. The mortality rate generally is highest on soils that have a sandy or clayey surface layer. The risk is slight if, after site preparation, expected mortality is less than 25 percent; moderate if expected mortality is between 25 and 50 percent; and severe if expected mortality exceeds 50 percent. Rating of moderate or severe indicate that it may be necessary to use containerized or larger than usual planting stock or to make special site preparations, such as bedding, furrowing, installing a surface drainage system, and providing artificial shade for seedlings. Reinforcement planting is often needed if the risk is moderate or severe.

Ratings of plant competition indicate the likelihood of the growth or invasion of undesirable plants. Plant competition is more severe on the more productive soils, on poorly drained soils, and on soils having a restricted root zone that holds moisture. The risk is slight if competition from undesirable plants hinders adequate natural or artificial reforestation but does not necessitate intensive site preparation and maintenance. The risk is moderate if competition from undesirable plants hinders natural or artificial reforestation to the extent that intensive site preparation and maintenance are needed. The risk is severe if competition from undesirable plants prevents adequate natural or

artificial reforestation unless the site is intensively prepared and maintained. A moderate or severe rating indicates the need for site preparation to ensure the development of an adequately stocked stand. Managers must plan site preparation measures to ensure reforestation without delays.

The potential productivity of common trees on a soil is expressed as a site index and a volume number. Common trees are listed in the order of their observed general occurrence. Generally, only two or three tree species dominate. The first tree listed for each soil is the indicator species for that soil. An indicator species is a tree that is common in the area and that is generally the most productive on a given soil.

The site index is determined by taking height measurements and determining the age of selected trees within stands of given species. This index is the average height, in feet, that the trees attain in a specified number of years. This index applies to fully stocked, even-aged, unmanaged stands. The site indices in table 8 are based on regional studies.

The volume is the yield likely to be produced by the most important trees expressed in cubic feet per acre per year calculated at the age of culmination of mean annual increment.

Trees to plant are those that are used for reforestation or, under suitable conditions, natural regeneration. They are suited to the soils and can produce a commercial wood crop. The desired product, topographic position (such as a low, wet area), and personal preference are three factors among many that can influence the choice of trees for use in reforestation.

Bell and Harlan Counties are in the mixed mesophytic forest region of the eastern deciduous forest. Steep mountain slopes make up about 90 percent of the survey area and, except for areas recently surface mined for coal, are forested. Maple, beech, yellow poplar, oak, and hickory are the dominant tree species.

Much of the forest land is owned by large corporations, which are primarily interested in the coal resources. Some of the forest land is in small private holdings. The Kentucky Ridge State Forest and the Kentenia State Forest, which make up a total of about 16,000 acres, are managed for multiple uses. Almost 16,000 acres of forest land is in the Cumberland Gap National Historical Park, Kingdom Come State Park, and Pine Mountain State Park. Other forest land owned by state, federal, and local

agencies makes up about 4,000 acres. Most of the publicly owned forest land is in the Helechawa-Alticrest-Varilla general soil map unit. Currently, three large sawmills operate in the survey area. Tree products, such as rough-sawn boards, mine props, shims, and blocking, are cut at several small mills. Mine props and fuel wood are cut by many landowners. Markets are insufficient for much of the low-quality hardwood.

FOREST SPECIES

The presettlement forest of the survey area was a mixed mesophytic deciduous forest, which flourished particularly in the higher mountains, in regard to number of tree species, size of trees, and variety of forest types. In the present-day mixed mesophytic forest association, several species generally are in a stand of trees. The most common species are sugar maple, yellow poplar, black locust, yellow buckeye, and basswood. Other species are northern red oak, red maple, white oak, chestnut oak, cucumbertree, American beech, eastern hemlock, black cherry, birch, magnolia, and hickory. The mixed mesophytic forest covers almost all 0f the Highsplint-coverlick-Guyandotte general soil map unit. It is on cool slopes and in coves.

Oak forests are in the drier areas, such as the south-and west-facing sides of mountains and the tops of mountains. The most common species are chestnut oak, scarlet oak, white oak, red maple, blackgum, and hickory. Oak-pine forests on Pine and Cumberland Mountains are also in the drier areas. Pitch pine, Virginia pine, and shortleaf pine are mixed with the oaks.

SOIL AND TREE RELATIONSHIPS

A knowledge of soils helps to provide a basic understanding of the distribution of tree species on the landscape and tree growth. Some of these relationships are readily recognized. For example, yellow poplar grow well on deep or very deep, moist soils and scarlet oak or pine is common where the rooting depth is restricted or the moisture supply is limited. The soil serves as a reservoir for moisture, provides an anchor for roots, and supplies most of the available nutrients. Soil properties that directly or indirectly affect these growth requirements include organic matter content, reaction, fertility, drainage, texture, structure, depth, and landscape position. Elevation and aspect are of particular importance in mountainous areas. The available water capacity is primarily influenced by texture, organic matter content, rooting depth, and content of rock fragments. In the survey area, available water capacity is a limitation

affecting tree growth only in the shallow soils, such as Totz soils, because of the fairly even and abundant summer rainfall. Changing the physical limitations of the soils is difficult, but timber stand improvement and thinning are useful in management.

All of the soils in the survey area, except for the shallowest ones, provide an adequate anchor for tree roots. The susceptibility to windthrow, or the uprooting of trees by the wind, is not a major management concern on most soils.

The available supply of nutrients affects tree growth. Mineral horizons in the soil are important. Mineralization of the humus releases nitrogen and other nutrients to plants. Calcium, magnesium, and potassium are held within the humus. Very small amounts of these nutrients are made available by the weathering of clay and silt particles. Most of the soils in the uplands have been leached and have only small amounts of nutrients below the surface layer. Where the surface layer is thin, as in Shelocta and Gilpin soils, careful management is needed during site preparation to ensure that the surface layer is not removed or degraded. The living plant community is part of the nutrient reservoir. The decomposition of leaves, stems, and other organic material recycles the nutrients that have accumulated in the forest ecosystem. Fire, excessive trampling by livestock and erosion can result in the loss of these nutrients. Forest management should include prevention of wildfires and protection from overgrazing. Aspect and landscape position influence the amount of available sunlight, air drainage, soil temperature, and moisture retention. North-and east-facing slopes, or cool slopes, are better suited to tree growth than south- and west-facing slopes, or warm slopes. Differences in site index values can be as much as 10 feet. Most of the soils on cool slopes have an A horizon that is thicker and has more humus and clay than that of the soils on warm slopes. Examples of soils on cool slopes are Cloverlick, Cutshin, Guyandotte, and Kimper. These soils have a slightly higher capacity to hold water and a much higher capacity to hold nutrients than the soils on warm slopes. The mean annual soil temperature is about 2 degrees F lower on the cool slopes. The difference in temperature is most prevalent during the dormant season. Because less sunlight falls on the canopy in areas of the cool slopes, the air temperature in the canopy and the transpiration rate are lower and less water is needed.

Soils on the lower slopes may receive additional water because of internal waterflow. On the very steep uplands, much of the water movement during periods of

saturation occurs as lateral flow within the subsoil.

Soil and air temperatures are lower on the upper slopes than on the lower slopes. The temperature decreases is about 1 degree F per 550-feet change in elevation. The soils at the base of warm slopes and the soils on the adjacent cool slopes are similar, probably because of the shading effect of the ridge and possibly because of air drainage. These similar soils are mapped together.

Nutrients, water, and landscape position largely determine which tree species grows on a particular soil. For example, sugar maple-basswood forest is on soils that have the highest fertility levels and a high moisture content. Beech grows on soils that have a high moisture content and intermediate fertility levels. Chestnut oak-red maple forest is on soils that have low fertility levels and a low moisture content. Scarlet oak-pine forest is on soils that have very low fertility levels and a very low moisture content.

ATTACHMENT 21.3.A

The existing uses of the land adjacent to this mining area consist of second growth forestland and mined lands. The mined lands are in a reclamation stage and active use and the second growth forestland are areas that were once cut for timber but have since reforested.

There are no local land use classifications of the proposed permit area. The area to be disturbed is a second growth forestland.

ATTACHMENT 21.4.A

The plans for establishing the post-mining land use of Forestland are consistent with the wishes of the landowners and are compatible with adjacent land uses. Surrounding lands are a combination of forestland and other Wildlife Habitats. The proposed uses do not conflict with any local, state or federal land use policy or plan and do not require approval by any local, federal or land management agency.

ATTACHMENT 21.5.A

The following pages, Landowner Comments are true and accurate copies of the originals as presented and approved in #807-0332, Original Application.

Notary Public: Amy B. Caudill

State in which commissioned: Kentucky

My commission expires: 2-13-10

June 28, 2006

Department for Natural Resources &
Environmental Protection
Surface Mining Bureau for
Reclamation and Enforcement
#2 Hudson Hollow Complex
Frankfort, KY 40601

RE: Appolo Fuels, Inc.
Comprehensive Application No. 807-0332

To Whom It May Concern:

This letter is to confirm that the undersigned surface and coal owner, Givens Heirs, is a party to agreements that allow Appolo Fuels, Inc., or its affiliated companies, to enter upon the surface tracts and perform surface mining activities. This Statement shall apply to the above referenced permit application, amendments, revisions, and any increase in acreage for tracts of land on which these permits, amendments, revisions and additional acreage are located.

As surface owner of the property on which the above referenced permit applications are located, Givens Heirs acknowledges and gives consent to Appolo Fuels, Inc. to reclaim the permitted areas to a post mining land use and forestland, and that roads be retained consistent with the intended use. We, the property owner, acknowledge that the Permittee will not be responsible for maintenance of the road after final bond release.

Sincerely,

(Name & Title Here)
On behalf of Givens Heirs
As its Sole Operating Manager

June 28, 2006

Department for Natural Resources &
Environmental Protection
Surface Mining Bureau for
Reclamation and Enforcement
#2 Hudson Hollow Complex
Frankfort, KY 40601

RE: Appolo Fuels, Inc.
Comprehensive Application No. 807-0332

To Whom It May Concern:

This letter is to confirm that the undersigned surface and coal owner, Givens Coal Co., Inc. is a party to agreements that allow Appolo Fuels, Inc., or its affiliated companies, to enter upon the surface tracts and perform surface mining activities. This Statement shall apply to the above referenced permit application, amendments, revisions, and any increase in acreage for tracts of land on which these permits, amendments, revisions and additional acreage are located.

As surface owner of the property on which the above referenced permit applications are located, Bell County Coal Corporation acknowledges and gives consent to Appolo Fuels, Inc. to reclaim the permitted areas to a post mining land use and forestland, and that roads be retained consistent with the intended use. We, the property owner, acknowledge that the Permittee will not be responsible for maintenance of the road after final bond release.

Sincerely,

(Name and Title Here)
On behalf of Givens Coal Co., Inc.
As its Sole Operating Manager

NRP (OPERATING) LLC
Highway 186 West @ Premier • P. O. Box 938
Middlesboro, KY 40965
(606) 248-2091 • Fax (606) 242-2922

July 21, 2006

Department for Natural Resources &
Environmental Protection
Surface Mining Bureau for
Reclamation and Enforcement
#2 Hudson Hollow Complex
Frankfort, KY 40601

Re: Appolo Fuels, Inc.
Comprehensive Application #807-0332

Pursuant to your request for a letter stating our plans for the post mining land use on the referenced permit; please be advised that WPP LLC, requests that the permittee, Appolo Fuels, Inc., return the referenced mine permit site to a forest land post mining land use. We also consent to any variance in contour which may be requested for the permit, and grant the right to mine this surface, as stipulated in our lease agreement, by any method, including all methods of surface mining.

We request the access roads remain after mining operations are completed, as we shall need access to provide haul roads for timber operations, wildfire prevention and control, and to develop and utilize our other resources. The roadbeds and adjoining slopes should be seeded with grass and water bars placed at appropriate places to reduce erosion. WPP LLC will maintain said roads, as necessary for our land use when the subject area is released back to it.

This letter may be applied to any permit revision or amendment to Permit #807-0332, its assigns and successors, and this letter shall be considered in effect until we provide notice to the contrary.

Sincerely,
NRP (Operating) LLC on
behalf of WPP LLC, its subsidiary

David Hensley
Vice President and Regional Manager

Subscribed to and sworn before me this 21 day of July, 2006.

Notary Public

My commission expires: May 4th, 2008

June 28, 2006

Department for Natural Resources &
Environmental Protection
Surface Mining Bureau for
Reclamation and Enforcement
#2 Hudson Hollow Complex
Frankfort, KY 40601

RE: Appolo Fuels, Inc.
Comprehensive Application No. 807-0332

To Whom It May Concern:

This letter is to confirm that the undersigned surface and coal owner, Bell County Coal Corporation, is a party to agreements that allow Appolo Fuels, Inc., or its affiliated companies, to enter upon the surface tracts and perform surface mining activities. This Statement shall apply to the above referenced permit application, amendments, revisions, and any increase in acreage for tracts of land on which these permits, amendments, revisions and additional acreage are located.

As surface owner of the property on which the above referenced permit applications are located, Bell County Coal Corporation acknowledges and gives consent to Appolo Fuels, Inc. to reclaim the permitted areas to a post mining land use and forestland, and that roads be retained consistent with the intended use. We, the property owner, acknowledge that the Permittee will not be responsible for maintenance of the road after final bond release.

Sincerely,

B.J. Reynolds
On behalf of Bell Co. Coal Corporation
As its Sole Operating Manager

21.10 Indicate the proposed postmining land use(s) of the permit area:

[***XX***] Forestland (40)	****43.54*** ac.	[ ] Developed Water Resources (53)	_____ ac.
[ ] Pastureland (20)	_____ ac.		
[ ] Cropland (21)	_____ ac.	[ ] Residential (11)	_____ ac.
[ ] Fish and Wildlife (01)	_____ ac.	[ ] Industrial/ Commercial (13)	_____ ac.
[ ] Recreation (02)	_____ ac.		
[ ] Mined Lands (30)	_____ ac.	[ ] Undeveloped (60)	_____ ac.

**** - Includes 0.63 acres of permanent roads. ** - Proposed this AM#1 application. 157.17 acres existing PMLU forestland, Total 200.71***

21.11 Describe how the proposed postmining land use(s) will be achieved and identify any necessary support or management activities which will be used. Submit as "Attachment 21.11.A".

See Attachment 21.11.A.

21.12 If the proposed postmining land use(s) represent a change from the existing or premining land use(s), provide the following information:

(a) A discussion of the feasibility, i.e. Suitability, capability, cost effectiveness of the proposed postmining land use(s). Submit as "Attachment 21.12.A".

(b) A schedule for achieving the proposed postmining land use(s). Submit as "Attachment 21.12.B".

(c) A discussion of how the proposed postmining land use(s) will be achieved within a reasonable time frame. Submit as "Attachment 21.12.C".

(d) A separate map showing the proposed postmining land use(s). Submit as "Attachment 21.12.D".

If section 21.12 is not applicable, check here [***XX***].

22. Vegetation Information

22.1 Provide as "Attachment 22.1.A", a map and narrative description of the existing vegetative types and plant communities within the proposed permit and any proposed reference area. This description shall include adequate information to predict the potential success for re-establishing vegetation on the proposed permit area.

See Attachment 22.1.A

ATTACHMENT 21.11.A

Post Mining Land Use
Fish and Wildlife Enhancement Plan

Upon completion of all coal mining activities, the support activities, all non-permanent facilities will be removed. Any and all disturbed areas will be graded to drain and vegetate with a variety of grasses, legumes and trees identified in the chart in Item 22.2. Final grade will be established by minimize tractor traffic which minimizes compaction which will maximize the sites quality as forest area. Grading will be conducted to minimize compaction but to insure stability, as much organic debris will remain, an occasional small depression, hill, gully, mound, rock or rock pile or woody debris will remain in order to establish a more diverse native forest area.

The proposed post-mining land use of Forestland will be achieved by planting the variety of vegetation listed in Item 22.2 of this application. Additional plantings will be made as necessary to insure that the site has an adequate stand of forage material. Much natural reforestation will occur on the permit area because of its close proximity to other heavily forested areas. All areas adjacent to the permit area currently support many vegetative species.

The revegetation plans proposed for this area is highly suitable for populations of white-tailed deer, and may also attract other species including ruffed grouse and some small furbearers and non-game birds. Although it is anticipated that the ponds located within the permit boundary will be removed in the future, the adjacent areas contain perennial streams with significant flow that will provide a water source for wildlife. Most of the animal species mentioned above do not require a daily source of open water; their water requirements can easily be provided by dew and succulent plants.

ATTACHMENT 21.11.A

In order to attract and maintain deer populations, an area must provide adequate food sources. Deer feed on a variety of fruits, mast and fungi, browse on woody material, and graze grasses and forbs. The area described in this application and the heavily-forested adjacent areas will provide sources of all these vegetative species. Adequate mast is provided by various types of oak, beech and hickory trees, all of which will be found within or adjacent to the permit area. Fruit sources are provided by other various tree and shrub species, including dogwood and autumn olives. Browse material is provided by various species of pine, maple, poplar and locust trees. As with the mast sources, these species will be found within or adjacent to the permit area.

There will be grassy areas within the permit boundary that contain grasses and forbs that can provide grazing material for the deer. These species include ladino clover and orchard grass. These same species provide forage and cover material for other wildlife species.

ATTACHMENT 22.1.A

As the pre-mining land use of the site was forestland, the areas immediately adjacent to the site are still forestland except for areas of active mining and areas that have been mined and are or abandoned.

A "Vegetation Analysis Survey" using procedures and techniques described in "Vegetation Analysis Survey" by Dr. Pierre A. Allaire, December 1982, has bene performed to provide the information required for this section. A walk-thru of the area adjacent to the proposed permit area has determined that the following habitat types exist within the proposed permit area : Upland Forest and Abandoned Mine Land.

UPLAND FOREST - To be designated on maps as UF. For the purpose of definition, a forest is a block of wooded vegetation, with dominant species present being greater than 4 inches in diameter at chest height (dbh) (4.5ft above ground level) and comprised of an area less than 17 acres, it is considered to be a woodlot.

Upland forest is designated primarily by relative elevation - not specific elevations, and generally lies above the flood plain or river bottomland. This designation is unique to a particular drainage and is not a specific figure.

ABANDONED MINE LAND - To be designated on maps as AML.

A description of the plant types found within each habitat type follows:

HABITAT TYPE - UF

Species	Stratum Rank
Southern Red Oak (Quercus Falcata)	SR-6
Shagbark Hickory (Carya Ovata)	SR-3
Eastern White Pine (Pinus Strobus)	SR-4
Beech (Fagus Grandifolia)	SR-1
Yellow Poplar (Liriodendron Tulipifera)	SR-7
Dogwood (Cornus Florida)	SR-2
Holly (Ilex Opaca)	SR-1
Greenbriar (Smilax App.)	SR-3
Laurel (Kalmia Latifolia)	SR-4

Appolo Fuels, Inc.
#807-0332, Amendment #1

ATTACHMENT 22.1.A

HABITAT TYPE - AML

Species	Stratum Rank
Fescue (Festuca)	SR-9
Lespedeza (Lespedeza)	SR-2

22.2 Complete the following table to describe the plan for revegetating the proposed permit area. If additional pages are necessary, identify as "Item 22.2 continued".

Proposed Postmining Land Use Unmanaged Forestland	**Rate per Acre**	**Acreage**	**Planting Dates**
Permanent Grass:(choose at least 2) **Timothy** **Orchard grass** **Red-top** **Perennial rye**	 **5 lb** **5 lb** **3 lb** **5 lb**	**43.92***	**02/15-05/15 and 08/15-10/15**
Legumes:(choose at least 2) **Birdsfoot trefoil** **Ladino clover** **Kobe/Korean Lespedeza**	**3-5 lb**	**43.92***	**02/15-05/15 and 08/15-10/15**
Trees: **Black Locust/White Pine** **Silver Maple** **White Ash** **White Oak**	 **50 stems** **100 stems** **100 stems** **100 stems**	**43.92***	**02/15-05/15 and 08/15-10/15**
Temporary Plants: **Annual rye**	**4 lb**	**43.92***	**Anytime**
Mulch: **Straw or Hay**	**1.5 Tons**	**43.92***	**As Needed**
Small Grains:			

*** = 5.34 acres of permanent road included in reclamation acreage.**

22.3 Are alternate soil stabilizers in lieu of mulch being requested?
[ ] YES [***XX***] NO. If "YES", justify this proposal, identify acreage for which this variance is requested and describe the nature of the soil stabilizer. Provide as "Attachment 23.3.A".

22.4 Provide as "Attachment 22.4.A", detailed description of:
(a) The methods to be used in planting, seeding and mulching, including irrigation, pest and disease control measures.
(b) The measures to be used to determine the success of revegetation as required by 405 KAR 16:200 and 405 KAR 18:200.
(c) The soil testing plan for evaluating the results of topsoil handling and reclamation procedures related to revegetation.
See Attachment 22.4.A.

ATTACHMENT 22.4.A-C

Revegetation Information

A

As the surface mining activity proposed in this application is completed, final grade will be established on the backfilled areas of the mine bench. The site will be backfilled with spoil from the mine bench to complete reclamation of the mine site. The areas mined as a part of this application will be backfilled with all reasonably available spoil material eliminating as much of the highwall as technically possible. Alternate topsoil material will be the final layer of spoil material. The alternate topsoil will be spread over the site in uniform thickness and care will be taken to prevent unnecessary compaction of the alternate topsoil. The alternate topsoil will be scarified prior to the area being revegetated with a variety of species.

The following methods to be implemented in regards to growth medium for trees and shrubs are recommended by D.S.M.R.E's RAM #124:

The best available growth medium on the permit area should be placed on the surface to depth of at least four feet, thus accommodation the needs of deeply rooted trees. Growth media with low to moderate levels of soluble salts, an Equilibrium pH of 5.0 to 7.0, low pyritic sulfur content, and texture conducive to proper drainage are preferred. However, for those sites where the best available material varies from the above recommendation, an equilibrium pH as low as 4.5 or as high as 8.0 is acceptable, so long as species tolerant of those conditions are selected and utilized.

Seed mixtures to be used for revegetation are described in Item 22.2. These seed mixtures will contain one annual or short-lived perennial species for quick cover and erosion control. The mixture will also contain long-lived perennial

legumes and grasses for permanent cover. These perennial species will replace the annual plants as they die out. The perennial legumes are nitrogen fixers and help to eliminate the need to refertilize the area with additional nitrogen. All seed to be used during reclamation will be pre-inoculated prior to purchase.

Seed mixtures will be applied using the direct seeding method. A hydroseeder may be utilized in the seeding process. The hydroseeder will be loaded with enough seed and water to cover one acre at a time to ensure proper coverage of the area to be reclaimed. In addition to the fertilizer to be mixed with the seed/water mixture, hydrated or agricultural lime will be added to prevent killing the inoculating bacterium in the seed.

After the area has been seeded, the area will be mulched. The mulch material on the areas of 10% or greater will consist of straw or hay which will be applied at a rate of 1.5 tons per acre. This mulch material will be applied by hand or by a device that chops and blows the material into place. Alternate mulch that may be used is wood fiber that would be applied at a rate of 1,000 lbs. per acre and may be applied by using a hydroseeder.

B

The angular transect method as outlined in TRM#19 shall be utilized to determine the success of revegetation as compared to the following standards. Areas planted only in herbaceous species shall sustain a vegetative ground cover of 80% (with 90% statistical confidence) for the last 3 years of the 5-year liability period. Also, areas planted with a mixture of herbaceous and woody species shall sustain an herbaceous ground cover of at least eighty (80) percent with a

ATTACHMENT 22.4.A-C

statistical confidence of ninety (90) percent, with no sign of significant erosion as set forth in 405 KAR 16:190, Sect. 6. Each species of woody plant will comprise at least 20 percent of the total stock and none of the species will comprise more than 50 percent of the total stock. TRM #19 shall be used when measuring final ground cover and tree stocking. Tree seedling survival shall be enhanced by planting seedlings during the first possible planting season following seeding of the grass species listed in Item 22.2

C

As detailed in Attachment 23.1.A of this application, alternate topsoil material would be placed at the sites indicated on the Mining and Reclamation Plan Map. This alternate topsoil material would be a blending of all salvaged topsoil and other suitable materials generated during the mining operation. After mining activity has been completed, alternate topsoil will be recovered from the storage area and would be redistributed over the mine site prior to revegetation of the site. Sixty (60) days prior to the completion of mining, the alternate topsoil will be tested again to determine what nutrients should be applied to the redistributed topsoil.

Soil sampling would be conducted in general accordance with the procedures outlined in U.S. AGR-41 "Sampling Surface Mine Lands Before and After Mining" by Evangelou and Barnhisel. Soil testing would be conducted by an independent laboratory using the methods outlined in "Field and Laboratory Methods Applicable to Overburdens and Minesoils", by A.A. Sobek et al March 1978. (EPA report 600/2-78-054.)

ATTACHMENT 23.1.A

As part of this attachment we will identify and describe the general soil map units which are located within the permit area described in this application. Information provided in this attachment was obtained from the Soil Conservation Service in the "Soil Survey of Bell and Harlan Counties, Kentucky", issued December, 1992.

The soil types located in the proposed permit area are the Shelocta-Kimper-Cutshin complex, the Highsplint-Cloverlick-Guyandotte complex , the Cloverlick-Guyandotte-Highsplint complex, the Fairpoint and Bethesda soils, 20 to 70 percent slopes and the Dumps, mine; tailings; and tipples. A description of these soils is as follows:

SmF-Shelocta-Kimper-Cutshin complex, 20 to 55 percent slopes, very stony. These deep and very deep, well drained, steep and very steep slopes are on ridgetops, mountain crests, and the upper side slopes in the mountains. In most areas the elevations range from about 2,500 to 3,500 feet and are about 1,000 to 2,000 feet above the valley floor. The higher elevations have more snow and ice during the winter than the lower elevations and may receive more rainfall during the summer. Knolls and gaps are along the crest of the ridges. Steep-sided ravines near the head of drainageways incise the ridges. In places all that remains of the ridge is a sharp-crested ridgeline. Stones and boulders cover about 0.1 to 15.0 percent of the surface. Most areas are long and narrow and range from 40 to 1,600 acres in size.

In a typical area the composition is as follows: Shelocta and similar soils-35 percent; Kimper and similar soils-25 percent; Cutshin and similar soils-15 percent; and contrasting inclusions-25 percent. The Shelocta soil is throughout this map unit. Most areas of the Cutshin and Kimper soils are on North- and eastfacing slopes and at the head of drainageways. In places, they are on the summits. The soils in this unit occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Typically, the Shelocta soil has a surface layer of silt loam about 8 inches thick. The upper part of this layer is dark grayish brown, and the lower part is yellowish brown. The subsoil is yellowish brown channery silt loam about 47 inches thick. Siltstone bedrock is at a depth of about 55 inches. In some areas the subsoil contains 35 to 50 percent rock fragments. In a few areas the surface layer has a higher content of clay.

Typically, the Kimper soil has a surface layer of gravelly silt loam about 7 inches thick. The upper part of this layer is very dark grayish brown, and the lower part is dark

yellowish brown. The subsoil is about 41 inches thick. It is yellowish brown. It is gravelly silty loam in the lower part. The substratum is yellowish brown and strong brown channery silt loam about 14 inches thick. Shale bedrock is at a depth of about 62 inches. In some areas the subsoil contains 35 to 50 percent rock fragments. In a few areas the surface layer has a higher content of clay.

Typically, the Cutshin soil has a surface layer of very dark gray silt loam about 9 inches thick. The subsurface layer is dark brown silt loam about 8 inches thick. The upper part of the subsoil is yellowish brown silt loam. The next part is yellowish brown gravelly loam. The lower part to a depth of about 60 inches is yellowish brown very gravelly loam. In some areas the subsoil contains 35 to 50 percent rock fragments. In a few areas the surface layer has a higher content of clay. These soils are low in natural fertility. The organic matter content is moderate in the Shelocta soil and high in the Kimper and Cutshin soils. The available water capacity is high. Permeability is moderate in all three soils. The number of roots decreases gradually with increasing depth, and there are few roots below a depth of about 18 inches. The depth to bedrock is 40 inches or more in the Cutshin soil and 48 inches or more in the Kimper and Shelocta soils.

Included in this map unit are small areas of shallow or moderately deep, loamy soils. These soils are dominantly on convex spurs but occur throughout the unit. They make up about 18 percent of the unit. Also included, on ledges or cliffs, are areas of rock outcrop, which make up about 2 percent of the unit.

Most areas are used as woodland. These soils are suited to trees. Productivity is moderate. In an average stand that is fully stocked, northern red oak on the Shelocta soil can reach a height of 65 feet in 50 years. A similar stand on the Kimper and Cutshin soils can reach a height of 70 to 75 feet. Some of the more common tree species are northern red oak, chestnut oak, sugar maple, red maple, and black cherry. In some areas these species are mixed with birches, black locust, cucumbertree, American basswood, yellow buckeye, various hickories, and numerous species of minor extent. The most common understory plants are mountain laurel, sassafras, azalea, buffalo nut, American hornbeam, striped maple, vaccinium, hydrangea, and greenbrier and, in places, American chestnut. The herbaceous flora is luxuriant to sparse and includes numerous species.

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The hazard of erosion, the equipment limitation, and plant competition are the major concerns in managing woodland. Erosion is a hazard along haul roads and skid trails. This hazard can be reduced by establishing a grade of less than 10 percent along Permanent access roads can be protected by water breaks, culverts, and gravel. Because of the slope, crawler tractors or other specialized equipment generally is needed. Logs can be yarded to roads and trails built on the contour. Trees can be planted by hand or by direct seeding methods. Plant competition can be a problem because site conditions favor the growth of competing plants. A new forest crop can be established by managing the existing stand and by applying herbicides or cutting. Table 8 gives additional information about woodland management and productivity.

The potential for woodland wildlife habitat is good. The habitat can be maintained or improved by providing food, cover, nesting areas, and den sites. Brushy thickets can be established along logging roads and trails. The habitat in areas of native plants can be improved by disking and applying fertilizer. Den trees should not be harvested. Brush piles or other nesting sites are needed.

These soils generally are unsuitable for cultivated crops, pasture, and building site development because of the slope.

HsF-Highsplint-Cloverlick-Guyandotte complex, 35 to 75 percent slopes, very stoney. These deep and very deep, well drained very steep soils are on the south-and west-facing sides of mountains. The elevations range from about 3,000 feet near the mountain crest to 1,400 feet along the base of the mountain. The higher elevations have more snow and ice during the winter than the lower elevations and may receive more rainfall during the summer. The downward slope of the mountain is nearly linear, except where broken by small cliffs or benches. Only a slight flattening of the slopes occurs near the top and bottom of the mountain. Across the mountain the slope is distinctly corrugated. Small streams in the grooves commonly begin near the mountain crest run almost to the base of the mountain before joining other streams. In most places the streams are 300 to 600 feet apart. Areas between the streams are characterized by sharp-crested ribs that have fairly smooth slopes. Stones and boulders generally cover 0.1 to 15.0 percent of the surface, but they cover as much as 70 percent of the surface in some ravines and in areas below cliffs. Most areas are nearly rectangular and range from about 60 to 2,500 acres in size.

ATTACHMENT 23.1.A

In a typical area the composition is as follows: Highplint and similar soils-53 percent; Cloverlick and similar soils-17 percent; Guyandotte and similar soils-10 percent; and contrasting inclusions-20 percent. The soils in this unit occur as areas so closely intermingled that they could not be separated at the scale selected for mapping.

Typically, the Highsplint soil has a surface layer of dark brown very channery silt loam about 4 inches thick. The upper part of the subsoil is yellowish brown very channery silt loam. The next part is yellowish brown very channery silty clay loam. The lower part to a depth of about 60 inches is yellowish brown very channery loam. In some areas the subsoil contains 20 to 35 percent rock fragments.

Typically, the Cloverlick soil has a surface layer of very dark grayish brown very flaggy loam about 5 inches thick. The subsurface layer is brown very flaggy loam about 6 inches thick. The subsoil to a depth of about 60 inches is dark yellowish brown and yellowish brown very flaggy loam. In some areas the subsoil contains 20 to 35 percent rock fragments. In a few areas the surface layer has a higher content of clay.

Typically, the Guyandotte soil has a surface layer of very dark grayish brown extremely flaggy silt loam about 6 inches thick. The subsurface layer is dark brown extremely flaggy silt loam about7 inches thick. The subsoil to a depth of about 60 inches is dark yellowish brown and yellowish brown extremely flaggy loam. In some areas the subsoil contains 20 to 35 percent rock fragments. In a few areas the surface layer has a higher content of clay.

These soils are low in natural fertility. The organic matter content is moderate in the Highsplint soil and high in the Cloverlick and Guyandotte soils. The available water capacity is moderate in all three soils. Permeability is moderate or moderately rapid. The number of roots decreases gradually with increasing depth, and there are few roots below a depth of about 18 inches. The depth to bedrock is 48 inches or more in the Highsplint and Cloverlick soils and 60 inches or more in the Guyandotte soil.

Included in this map unit are small areas of loamy soils that are less than 30 inches deep over bedrock. These soils make up about 10 percent of the unit. Also included, on ledges or cliffs, are areas of rock outcrop, which make up less than 1 percent of the unit.

Most areas are used as woodland. A few areas adjacent to the stream valleys have been cleared and are used as unimproved pasture.

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These soils are suited to trees. Productivity is high. In an average stand that is fully stocked, yellow poplar can reach a height of about 100 feet in 50 years. Under similar conditions, northern red oak can reach a height of 75 feet. Some of the more common tree species in coves and on the lower slopes are sugar maple, yellow poplar, black locust, and northern red oak. In some areas these species are mixed with chestnut oak, red maple, cucumbertree, black cherry, magnolia, birches, and various hickories. Near the base of the mountain, American beech, eastern hemlock, and white oak are common. Many abandoned fields have reverted to nearly pure stands of yellow poplar. Some of the fields have been planted to eastern white pine or other pine species. The most common understory plants are mountain laurel, sourwood, sassafras, azalea, flowering dogwood, American hornbeam, vaccinium, hydrangea, and greenbrier. The herbaceous flora is abundant or luxuriant and includes numerous species.

The hazard of erosion, the equipment limitation, and plant competition are the major concerns in managing woodland. Erosion is a hazard along haul roads and skid trails. This hazard can be reduced by establishing a grade of less than 10 percent along the roads and trails and by limiting the area of surface disturbance to 10 percent or less. Permanent access roads can be protected by water breaks, culverts, and gravel. Because of the slope, crawler tractors or other specialized equipment generally is needed. Logs can be yarded to roads and trails built on the contour. Trees can be planted by hand or by direct seeding methods. Plant competition can be a problem because site conditions favor the growth of competing plants. A new forest crop can be established by managing the existing stand and by applying herbicides or cutting.

The potential for woodland habitat is good. The habitat can be maintained or improved by providing food, cover, nesting areas, and den sites. Brushy thickets can be established by clearing small areas in large tracts of mature woodland. Food plots or areas of green browse can be established along logging roads and trails. The habitat in areas of native plants can be improved by disking and applying fertilizer. Den trees should not be harvested. Brush piles or other nesting sites are needed.

These soils are generally unsuitable for cultivated crops, pasture, and building site development because of the slope.

FbF-Fairpoint and Bethesda soils, 20 to 70 percent slopes. These very deep, well drained, steep to very steep soils are on ridges and mountains. Most areas have

been surface mined for coal. Some have been altered by highway construction or other extensive earthmoving. The dominant slopes are 20 to 70 percent, but many areas have a narrow bench where the slopes are 0 to 20 percent. Stones and boulders cover about 0.01 to 3.0 percent of the surface in some areas. Most areas are long and narrow or are irregular in shape. They are 10 to 200 acres in size.

In a typical area, about 80 percent of the acreage is the Fairpoint soil, the Bethesda soil, or both and 20 percent is contrasting inclusions. Individual areas of each soil are large enough to be mapped separately. Because of the present and predicted uses, however, the soils were mapped as one unit. Many areas contain both soils, but some contain only one of the soils.

Typically, the Fairpoint soil has a surface layer of dark gray and dark grayish brown very channery silt loam about 11 inches thick. The substratum to a depth of about 60 inches is dark gray and dark grayish brown very channery silt loam. In some areas the substratum contains 15 to 35 percent rock fragments. In other areas the surface layer contains more clay or more sand.

Typically, the Bethesda soil has a surface layer of yellowish brown very channery loam about 5 inches thick. The subsurface layer is grayish brown very channery silt loam or extremely channery silt loam. In some areas the substratum contains 15 to 35 percent rock fragments. In other areas the surface layer contains more clay or more sand.

These soils are low in natural fertility and in organic matter content. Permeability is moderately slow. The available water capacity is moderate. The depth to bedrock is 60 inches or more.

Included in this map unit are small areas of soils that have not been disturbed by surface mining. Also included are shallow, loamy soils in surface-mined areas; ponded or seepy areas; soils that have a pH of 3.0 to 3.6; and rock escarpments, mine dumps, and water. Included areas make up about 20 percent of the unit.

Most areas have been smoothed and seeded to various grasses, legumes, and trees. A few areas were not planted but have reverted to various grasses, forbs, and trees. A few areas are used as pasture.

These soils generally are unsuited to cultivated crops, such as corn and soybeans. The main limitations are the slope and the rock fragments in the surface layer.

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These soils are suited to grasses and legumes. They are best suited to forage species that are tolerant of drought and a wide range of acidity. Tall fescue and sericea lespodeza have been grown successfully. In most areas the pH ranges from 4.8 to 6.5, but in places it is low as 3.6 or as high as 7.5. Where a higher pH is desired, lime can be added. Most areas require 2 to 5 tons of lime to raise the pH to about 6.5. The amount to be applied should be based on the results of soil tests and the quality of the lime. The supply of phosphorus generally is very low. This nutrient commonly is needed for successful seeding. Potassium levels generally are low or medium and commonly are adequate for cover mixtures. Other limitations affecting grasses and legumes are the slope, compacted layers, and a high content of rock fragments.

These soils are suited to trees. Productivity is moderate. In an average stand that is fully stocked, lobolly pine on the Fairpoint soil can reach a height of about 74 feet in 50 years. On the Bethesda soil, a similar stand can reach a height of 69 feet.

The hazard of erosion, the equipment limitation, and plant competition are the major concerns in managing woodland. Seedling mortality is an additional concern on the warm slopes. Erosion is a hazard along logging roads and trails. A protective plant cover is needed. Seeding herbaceous species along with the tree species helps to control erosion. Mulching with straw or processed wood fiber also helps to control erosion. Because of the slope, hand seeding or special seeding equipment may be needed. In many areas the seed, fertilizer, and mulch are applied as a slurry. The tree species suitable for seeding are black locust, eastern white pine, loblolly pine, yellow poplar, and white oak. Table 8 gives additional information about woodland management and productivity.

The potential for openland wildlife habitat is very poor. The habitat can be improved by providing food, cover, water, nesting areas, and den sites. Rows of trees and shrubs can break up large open areas. Mixtures of grasses and legumes can be planted for food and cover. The habitat in areas of native plants can be improved by disking and applying fertilizer. Shallow water areas can be established. Also, seasonal pools can be established in depressions. Brush piles or other nesting sites are needed.

These soils generally are unsuited to urban development because of the slope and the hazards of uneven settling, landslides, and slumps.

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CgF-Cloverlick-Guyandotte-Highsplint complex, 35 to 75 percent slopes, very stony. These deep and very deep, well drained soils are on the cool slopes on mountainsides. The elevations range from about 3,000 feet near the mountain crest to 1,400 feet along the base of the mountain. The higher elevations have more snow and ice during the winter than the lower elevations and may receive more rainfall during the summer. The downward slope of the mountain is nearly linear, except where broken by small cliffs or benches. Only a slight flattening of the slope occurs near the top and bottom of the mountain. Across the mountain the slope is distinctly corrugated. Small streams in the grooves commonly begin near the mountain crest and run almost to the base of the mountain before joining other streams. In most Places the streams are about 300 to 600 feet apart. Areas between the streams are characterized by sharp-crested ribs that have fairly smooth slopes. Stones and boulders generally cover about 0.1 to 15.0 percent of the surface. They cover as much as 70 percent of the surface, however, in some ravines and in areas below some cliffs. In places, sandstone layers form cliffs. Most areas are nearly rectangular and range from about 60 to 2,500 acres in size.

In a typical area, the composition of this soil complex is as follows: Cloverlick and similar soils--45 percent; Guyandotte and similar soils--20 percent; Highsplint and similar soils--20 percent; and contrasting inclusions--15 percent. The soils in this unit occur as areas so closely intermingled that they could be separated as the scale selected for mapping.

Typically, the Cloverlick soil has a surface layer of very dark gray gravelly loam about 6 inches thick. The subsoil extends to a depth of about 70 inches. The upper part is brown and yellowish brown gravelly loam, the next part is yellowish brown gravelly loam, and lower part is yellowish brown very flaggy loam. In some areas the subsoil contains 20 to 35 percent rock fragments.

Typically, the Guyandotte soil has a surface layer of very channery loam about 17 inches thick. This layer is very dark grayish brown in the upper part and dark brown in the lower part. The upper part of the subsoil is dark yellowish brown very channery loam. The lower part to a depth of about 61 inches is yellowish brown very channery loam. In some areas the subsoil contains 20 to 35 percent rock fragments.

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Typically; the Highsplint soil has a surface layer of very dark grayish brown very channery loam about 3 inches thick. The subsoil to a depth of about 60 inches is yellowish brown very channery loam. In some areas the subsoil contains 20 to 35 percent rock fragments.

These soils are low in natural fertility. The organic matter content is high in the Cloverlick and Guyandotte soils and moderate in the Highsplint soil. The available water capacity is moderate in all three soils. The number of roots decreases gradually with increasing depth, and there are few roots below a depth of about 18 inches. Permeability is moderate or moderately rapid in the Cloverlick and Guyandotte soils and moderate or moderately rapid in the Highsplint soil. The depth to bedrock is 48 to more than 60 inches in the Cloverlick and Highsplint soils and 60 inches or more in the Guyandotte soil.

Most areas are used as woodland. A few areas adjacent to the stream valleys have been cleared and are used as unimproved pasture.

The hazard of erosion, the equipment limitation, and plant competition are the major concerns in managing woodland. Erosion is a hazard along haul roads and skid trails. This hazard can be reduced by establishing a grade of less than 10 percent along the roads and trails and by limiting the area of surface disturbance to 10 percent or less. Permanent access roads can be protected by water breaks, culverts, and gravel. Because of slope, crawler tractors or other specialized equipment generally is needed.

The potential for woodland wildlife habitat is good. The habitat can be maintained or improved by providing food, cover, nesting areas, and den sites. Brushy thickets can be established by clearing small areas in large tracts if mature woodland. Food plots or areas of green browse can be established along logging roads and trails. The habitat in areas of native plants can be improved by disking and applying fertilizer. Den trees should not be harvested. Brush piles or other nesting sites are needed. These soils generally are unsuitable for cultivated crops, pasture, and building site development because of the slope.

Du-Dumps, mine; tailings; and tipples. This map unit consists of the residue of coal mining. The mine dumps, or "gob piles," are heaps of coal that contain too many impurities to be of commercial value. Commonly, the heaps are steep, flat-topped hills about 100 feet high. The tailings are finely pulverized coal and shale washed from the mined coal during preparation and then deposited in basins or tailing ponds. Tipples are

ATTACHMENT 23.1.A

coal-loading areas. They include large piles of coal and loading and storage facilities. Commonly, each miscellaneous area is large enough to be mapped separately. Because of present and predicted uses, however, they were mapped as one unit. Most delineations contain each of these miscellaneous areas, but many contain two or only one of these areas. The material shows no evidence of alteration by soil-forming processes. Most areas are nearly oval and range from about 8 to 80 acres in size. The mine dumps commonly consist of very dark grayish brown or black channers. The content of rock fragments commonly ranges, by volume, from 75 to 95 percent. The fragments are about 1/12 inch to 6 inches long. The mine dumps include heaps of "red dog," or the residue of impure coal that has burned. The tailings consist of sand-sized black material, which generally is finely pulverized coal. The material is washed from coal and is allowed to settle in basins. Most of the material would pass through a 100-mesh screen. The tipples are coal-loading areas. They include large piles of coal; processing, loading, and storage facilities; buildings; and parking areas. Included in this map unit are small areas of Bethesda and Fairpoint soils and other Udorthents. These soils are in landscape positions similar to those of the Dumps. Udorthents formed in loamy fill material. Included soils make up about 15 percent of the unit. These areas generally support no vegetation or a sparse cover of grasses, forbs, and small trees. The main limitations affecting the establishment of vegetation are high acidity, droughtiness, and very low fertility. In places a high content of rock fragments in the surface layer or the slope is a limitation. The steeper areas can be smoothed. Applying lime and fertilizer, mulching, and selecting species that is suited to acid, droughty soil material can help to establish a plant cover. Some areas can be top dressed with soil material that is better suited to plants.

Appolo Fuels, Inc.
#807-0332, Amendment #1

ATTACHMENT 23.2.A

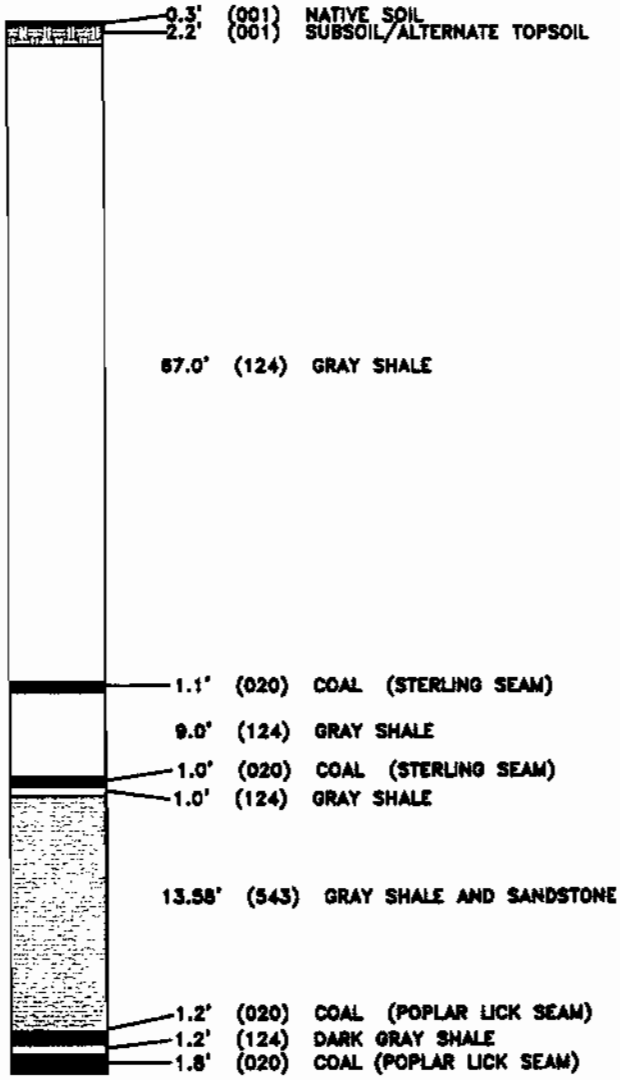
The following pages, Geologic Cross Section, Lab Analysis and soil Scientist statement are a true and accurate copies of the original as presented and approved in #807-0332, Original Application.

Notary Public: Nancy R. Caudill

State in which commissioned: Kentucky

My commission expires: 2-13-10

HW-2



I, Timothy C. Howard, P.E. No. 15,317

Date: 5/15/06

hereby certify in accordance with 405 KAR 7:040, Section10, that this document is correct as determined by accepted engineering practices and includes all information required of it by Chapter 350 and KAR Title 405.

STATE OF KENTUCKY ★ TIMOTHY C. HOWARD ★ PROFESSIONAL ENGINEER

Appolo Fuels, Inc.

Permit No. 807-0332
Geologic Cross Section (Alternate Topsoil)
Attachment 23.2.A

Scale: 1" = 5' | Page No. 1 of 1

Prepared by
Howard Engineering & Geology, Inc.

ppalachian Field Services Company

P.O. Box 373
Baxter, Kentucky 40806
Telephone (606) 573-0521

SAMPLE IDENTIFICATION : APPOLO FUELS INC.

PERMIT NUMBER : 807 - 0332
(HW - 2)
(SUBSOIL - ALTERNATE TOPSOIL MATERIAL, SAMPLE # 1B)

SAMPLED BY : H.E.G.

SAMPLE DATE : 02/17/2006

REPORT DATE : 03/03/2006

PARAMETER	RESULT	
SOIL / WATER pH	*4.35*	*STD. UNITS*
BUFFER pH	*6.81*	*STD. UNITS*
LIME REQUIREMENT	*0.1*	*TONS / ACRE CaCO3*
POTASSIUM	*62*	*POUNDS/ACRE*
PHOSPHORUS	*100*	*POUNDS/ACRE*
CLAY	*44.18*	*PERCENT*
SILT	*29.98*	*PERCENT*
SAND	*25.84*	*PERCENT*
COARSE FRAGMENTS	*3*	*PERCENT*
NEUTRALIZATION POTENTIAL	*2.42*	*TONS/CaCO3*
POTENTIAL ACIDITY	*6.28*	*TONS/CaCO3*
NET NP / PA	*- 3.86*	*TONS/CaCO3*

S MITTED BY : _____

Appalachian Field Services Company

P.O. Box 373
Baxter, Kentucky 40806
Telephone (606) 573-0521

SAMPLE IDENTIFICATION : APPOLO FUELS INC.

PERMIT NUMBER : 807 - 0332
(HW - 2)
(EXISTING TOPSOIL, SAMPLE # 1A)

SAMPLED BY : H.E.G.

SAMPLE DATE : 02/17/2006

REPORT DATE : 01/09/2007

PARAMETER		RESULT	
SOIL / WATER pH		*6.03*	*STD. UNITS*
BUFFER pH		*7.08*	*STD. UNITS*
LIME REQUIREMENT	*(67% RNV AGLIME to pH 6.80)*	*2.0*	*TONS / ACRE CaCO3*
LIME REQUIREMENT	*(HYDRATED LIME to pH 6.80)*	*1.3*	*TONS / ACRE CaCO3*
POTASSIUM		*118*	*POUNDS/ACRE*
PHOSPHORUS		*72*	*POUNDS/ACRE*
CLAY		*51.57*	*PERCENT*
SILT		*20.08*	*PERCENT*
SAND		*28.35*	*PERCENT*
COARSE FRAGMENTS		*1*	*PERCENT*
NEUTRALIZATION POTENTIAL		*7.10*	*TONS/CaCO3*
POTENTIAL ACIDITY		*3.94*	*TONS/CaCO3*
NET NP / PA		*+ 3.16*	*TONS/CaCO3*

SUBMITTED BY : _____

Appalachian Field Services Company

P.O. Box 373
Baxter, Kentucky 40806
Telephone (606) 573-0621

SAMPLE IDENTIFICATION : APPOLO FUELS INC.

PERMIT NUMBER : 807 - 0332
(HW - 2)
(SUBSOIL - ALTERNATE TOPSOIL MATERIAL, SAMPLE # 1B)

SAMPLED BY : H.E.G.

SAMPLE DATE : 02/17/2006

REPORT DATE : 01/09/2007

PARAMETER		RESULT	
SOIL / WATER pH		*4.35*	*STD. UNITS*
BUFFER pH		*6.81*	*STD. UNITS*
LIME REQUIREMENT	*(67% RNV AGLIME to pH 6.80)*	*3.5*	*TONS / ACRE CaCO3*
LIME REQUIREMENT	*(HYDRATED LIME to pH 6.80)*	*2.3*	*TONS / ACRE CaCO3*
POTASSIUM		*62*	*POUNDS/ACRE*
PHOSPHORUS		*100*	*POUNDS/ACRE*
CLAY		*44.18*	*PERCENT*
SILT		*29.98*	*PERCENT*
SAND		*25.84*	*PERCENT*
COARSE FRAGMENTS		*3*	*PERCENT*
NEUTRALIZATION POTENTIAL		*2.42*	*TONS/CaCO3*
POTENTIAL ACIDITY		*6.28*	*TONS/CaCO3*
NET NP / PA		*- 3.86*	*TONS/CaCO3*

SUBMITTED BY : _____

Howard D. York, Jr.
P.O. Box 1309
Harlan, Kentucky 40831

April 10, 2006

Division of Permits, DSMRE
Management Support Branch
Work Area B41
#2 Hudson Hollow Complex
Frankfort, Kentucky 40601

RE: Apollo Fuels Inc.

Permit #807-0332
Alternate Topsoil
Samples HW-2, 1A & 1B

Dear Sir:

I do hereby certify that the analyses performed by Appalachian Field Services Company, P.O. Box 373, Baxter, Kentucky 40806, on topsoil and alternate topsoil materials indicate the following:

1) Physical examination of the mine area revealed that the topsoil exists in an insufficient quantity on the permit area to cover the spoil and sustain adequate vegetation.

2) The alternate material analyzed was the best available material to use as alternate topsoil material.

3) Chemical analyses of the topsoil and alternate materials indicates that with the addition of 50 lbs./acre of K2O and the agricultural lime specified in the soil analyses that the alternate material will be of equal quality to the topsoil sampled.

It is my recommendation that with the addition of the fertilizer and agricultural lime listed in item 3 that the alternate materials be used as a substitute material or in combination with the topsoil in the post mining land use.

Respectfully submitted,

Howard D. York, Jr.

Howard D. York, Jr., Soil Scientist
P.O. Box 1309
Harlan, Kentucky 40831

ATTACHMENT 23.3.A

As detailed previously in this application, the area proposed for mining as a part of this application has been subjected to previous surface disturbances from mining activity. However, during the normal clearing and grubbing of the trees, brush and stumps, along with other herbaceous material, the relatively steep slope of the land along with equipment size limitations make it virtually impossible to remove brush, stumps and herbaceous material without significant amounts of topsoil loss. It is for this reason that it is proposed to utilize an Alternate Topsoil material. The Alternate Topsoil, which is proposed for use in this mining operation, will consist of soil material and blended with strata from the surface mining activity as indicated on the Stratigraphic columns provided in Attachment15.2.A. This Alternate Topsoil will not be stored, but as the mining activities progress, the top layer of spoil material will be utilized as the appropriate alternate topsoil material.

Alternate Topsoil that will be distributed over previously backfilled and graded areas will be handled as follows:

1) Achieves an approximate uniform stable thickness consistent with the approved post-mining land uses, contours and surface water drainage system.
2) Prevents excessive compaction of the material.
3) Protects the material from wind and water erosion before and after it is seeded and planted.
4) Scarified prior to seeding and mulching to prevent slippage and promote root penetration.