



 west virginia department of environmental protection

Office of Oil and Gas
 601 57th Street, S.E.
 Charleston, WV 25304
 (304) 926-0450
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Tuesday, May 14, 2019

WELL WORK PLUGGING PERMIT
 Vertical Plugging

CORE APPALACHIA OPERATING LLC
 414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 824319
 47-099-02037-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
 Chief

Operator's Well Number: 824319
 Farm Name: CRAWFORD, ROMA MADEI
 U.S. WELL NUMBER: 47-099-02037-00-00
 Vertical Plugging
 Date Issued: 5/14/2019

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date March 11, 20 19
2) Operator's Well No. 824319 **05/17/2019**
3) API Well No. 47-099 - 02037

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1089.88' Watershed Kiah Creek of Twelvepole
District Lincoln County Wayne Quadrangle Kiahsville

6) Well Operator Core Appalachia Operating, LLC 7) Designated Agent Jessica Greathouse
Address P.O. Box 6070 Address P.O. Box 6070
Charleston, WV 25362 Charleston, WV 25362

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Allen Flowers Name Precision Drilling (BOSS)
Address 165 Grassy Lick Lane Address 3978 N Elmdale Road
Liberty, WV 25124 Olney, IL 62450

10) Work Order: The work order for the manner of plugging this well is as follows:

SEE ATTACHED SHEET

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector  Date 3-20-2019

PLUGGING PROGNOSIS

824319
West Virginia, Wayne County
API # 47-099-02037

By: J. Mast
Date: 3/8/2019

Casing Schedule

26" csg @ 17'. Cemented w/ 240 cu ft.
20" csg @ 408'. Cemented w/ 630 cu ft. Cemented to surface per
daily summary (10/11/2000)
13 3/8" csg @ 2041'. Cemented w/ 1830 cu ft. Calculated TOC
@ surface (17.5 hole)
9 5/8" csg @ 4127'. Cemented w/ 354 cu ft. Estimated TOC @
3000' (12.25 hole)
7" csg @ 6572'. Cemented w/ 565 cu ft. Estimated TOC @ 2800'
(8.75 hole)

Plugged Back:

- Surface – 6509' gel
- 6509' - 7057' Cement
- 7057' - 8159' gel
- 8159' - 8359 Latex Cement
- 8359' - 8951' gel
- 8951' - 9251' Latex Cement
- 9251' - 9282' Fill

Completion

- Well not completed

Fresh Water: None reported

Saltwater: 1300'

Elevation: 1092'

Coal: None reported

Gas & Oil Shows: No shows reported

1. Notify inspector, Allen Flowers @ 304-552-8308, 48

AF. 3-20-2019

- hrs. prior to commencing operations.
2. Record wellhead pressures, blow well down, and check TD. Top off previous plug from plugging back if below 6522'
 3. MIRU wireline set CIBP @ **6400'** (Inside 7" csg, L80, 26#/ft)
 4. TIH w/ tbg to 6400'. Pump 100' C1A cement plug **6300'- 6400'**
 5. TOO H w/ tbg to 6300'. Pump 6% bentonite gel spacer **3050'- 6300'**
 6. TOO H w/ tbg. Free point 7" csg or calculate stretch. Cut 7" csg at free point and TOO H w/ csg. Set 100' C1A cement plug 50' below/50' above csg cut and any unsuccessful attempts. Estimated plug depth: **2950'- 3050'**
 7. Free point 9 5/8" csg or calculate stretch. Cut 9 5/8" csg at free point and TOO H w/ csg. Set 100' C1A cement plug 50' below/50' above csg cut and any unsuccessful attempts. Estimated plug depth: **2850'- 2950'**
 8. TOO H w/ tbg to 2850'. Pump 6% bentonite gel: **2091'- 2850'**
 9. TOO H w/ tbg to 2091'. Pump 100' C1A cement plug **1991'- 2091'**
 10. TOO H w/ tbg to 1991'. Pump 6% bentonite gel: **1350'- 1991'**
 11. TOO H w/ tbg to ^{1350'}~~2091'~~. Pump 100' C1A cement plug **1250'- 1350'**
 12. TOO H w/ tbg to ^{1250'}~~1991'~~. Pump 6% bentonite gel: **1142'- 1250'**
 13. TOO H w/ tbg to 1142'. Pump 100' C1A cement plug **1042'- 1142'**
 14. TOO H w/ tbg to 1042'. Pump 6% bentonite gel: **458'- 1042'**
 15. TOO H w/ tbg to 458'. Pump 100' C1A cement plug: **358'- 458'**
 16. TOO H w/ tbg to 358'. Pump 6% bentonite gel: **100'- 358'**
 17. TOO H w/ tbg to 100'. Pump 100' C1A cement plug: **surface to 100'**
 18. TOO H w/ tbg. Top off surface plug as needed.
 19. Erect monument per WV-DEP specifications.
 20. Reclaim location and road to WV-DEP specifications.

DEEP

DATE: July 20, 2004

47-099-020379

API: 47-099-2037

05/17/2019

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: Roma Madeline Crawford
Location Elevation: 1092'
District: Stonewall

Operator Well No: 824319
Quadrangle: Kiahsville
County: Wayne

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P.O. Box 6070	26"	17	17	240
Charleston, WV 25362	20"	408	408	630
Agent: Michael A. John	13 3/8"	2041	2041	1830
Inspector: D. Belcher/G. Seites	9 5/8"	4127	4127	354
Date Permit Issued: 8/09/00	7"	6572	6572	565
Date Well work commenced: 10/08/00				
Date Well Work completed: 12/18/00				
Verbal Plugging: Plug Back				
Date Permission granted on: 12/16/00				
Rotary X Cable Rig				
Total Depth (feet): 9282'				
Fresh Water Depth (ft): N/A				
Salt Water Depth (ft): 1300'				
Is coal being mined in area (Yes)				
Coal Depths (ft): N/A				

CS
CS
TOC 23000'
FOC = 3450'

OPEN FLOW DATA
(See Attachment)

Producing formation: Pay zone depth (ft) from to; from to
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

2nd producing formation: Pay zone depth (ft) from to; from to
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

3rd producing formation: Pay zone depth (ft) from to; from to
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

WELL OPERATOR: COLUMBIA NATURAL RESOURCES, INC.

By: Robert E. Schindler
Robert E. Schindler, Technical Administrator

Date: 7/20/04

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WAY 2037

Columbia Natural Resources
Columbia Natural Resources Fee Land #824319
Stonewall District, Wayne County, West Virginia
47-099-02037
GL 1092 ft/KB 1112 ft

Formation	Top	Bottom
Siltstone & shale	0	992
Salt sand	992	1100
Siltstone & shale	1100	1182
Salt sand	1182	1400
Siltstone & shale	1400	1602
Maxon sand	1602	1660
Shale	1660	1679
Little Lime	1679	1718
Big Lime	1718	1914
Shale	1914	1968
Squaw sand	1968	1984
Shale	1984	2024
Weir siltstone	2024	2058
Shale	2058	2500
Coffee shale	2500	2524
Berea siltstone	2524	2540
Devonian shale	2540	3366
Lower Huron shale	3366	3588
Java shale	3588	3780
Rhinestreet shale	3780	3942
Marcellus shale	3942	3966
Onondaga lime	3966	4196
Salina dolomite & shale	4196	4729
Big Six sand	4729	4750
Rose Hill shale	4750	5060
Tuscarora sand	5060	5178
Juniata Shale	6746	5385
Martinsburg shale	5385	6436
Trenton limestone	6436	6766
Black River limestone	6766	7488
Wells Creek limestone & dolomite	7488	8234
St. Peter sandstone	8234	8294
Beekmantown dolomite	8294	9010
Rose Run sandstone	9010	9170
Copper Ridge dolomite	9170	9260 LTD

No measurable shows in open hole interval 6572' - TD

Columbia Natural Resources
Roma Madeline Crawford #824319
Stonewall District, Wayne County, West Virginia
47-099-2037

05/17/2019

Well was logged and plugged back for a potential kick. All casing was left in hole. Well was plugged back as follows:

Surface – 6509'	Gel
6509' – 7057'	Cement
7057' – 8159'	Gel
8159' – 8359'	Cement with Latex
8359' – 8951'	Gel
8951' – 9251'	Cement with Latex
9251' – 9282'	Fill

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MAY 20 2004

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Operations Summary

Well 824319 05/17/2019
47-099-02037P

Well Name: CNR FEE 232
Property Number: 824319
Field Office: HAMLIN, Route: DEV-HAM-RT 201 - D YEAGER
WAYNE, WEST VIRGINIA

Property Number 824319	API/UWI 4709902037	Surf Loc T/D STONEWALL, Q-KIAH...	Field Name Harts Creek Deep	Drill Permit No 2037	State/Province WEST VIRGINIA	Well Config DIRECTIONAL
Ground Elevation (ft) 1,092.0	Casing Flange Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	Spud Date 10/8/2000 00:00	Rig Release Date	

Daily Operations

Job Category	Secondary Job Type SMS/PMS Data Load	Start Date	Description of Work	24 Hr Summary Loaded from SMS	Day Total (Cost)	Cum To Date (...)
Historical		10/5/2000	REPORT FOR 10/03/00: BR&L ON 10/2/00			
Historical		10/9/2000	REPORT FOR 10/06/00: CONTINUE TO BR&L; PREP TO SET 26 CONDUCTOR. REPORT FOR 10/07/00: BR&L, SET 19~ OF 26 CONDUCTOR @ 17~ G.L., CMT WITH 9 YDS OF READY-MIX CONCRETE, JOB COMPLETE @ 3:00 P.M. ON 10/6/00, M.I. TOP HOLE RIG. REPORT FOR 10/08/00: R.U. TOP HOLE RIG, PREP TO SPUD 24 HOLE. REPORT FOR 10/09/00: FINISHED R.U., SPUD 24 HOLE @ 4:00 P.M. ON 10/8/00, DRL 24 HOLE @ 340~, FOAMING. (ROB)			
Historical		10/10/2000	REPORT FOR 10/10/00: T.D. 24 HOLE @ 11:00 A.M. ON 10/9/00, RAN 408~ OF 20 CSG; RIG UP WITH SCHLUMBERGER AND CMT WITH 300 SX CLASS A, PLUG DOWN AT 12:10 A.M. ON 10/10/00. PREPARING TO FINISH CEMENTING. (WRIGHT)			
Historical		10/11/2000	REPORT FOR 10/11/00: CMT 20 HOLE W/ 235 SX CLASS A CMT TO SURFACE, JOB COMPLETED @ 2:30 P.M. ON 10/10/00, WOC, MOVE OUT TOP HOLE RIG (WRIGHT)			
Historical		10/12/2000	REPORT FOR 10/12/00: WORR (ROB)			

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Operations Summary

Well 824319 **05/17/2019**
47-099-02037P

Well Name: CNR FEE 232
Property Number: 824319
Field Office: HAMLIN, Route: DEV-HAM-RT 201 - D YEAGER
WAYNE, WEST VIRGINIA

Daily Operations

Job Category	Secondary Job Type	Start Date	Description of Work	24 Hr Summary	Day Total (Cost)	Cum To Date (...)
Historical	SMS/PMS Data Load	11/13/2000	REPORT FOR 11-10-00: T.I.H. W/ 12 1/4 BIT W/ HMR. DRLG 12 1/4 HOLE @ 2600~, DUSTING W/ HMR. REPORT FOR 11-11-00: DRLG. 12 1/4 HOLE @ 3381~, DUSTING W/ HMR. REPORT FOR 11-12-00: DRLG 12 1/4 HOLE @ 4117~, DUSTING W/ HMR. REPORT FOR 11-13-00: T.D. - 12 1/4 HOLE @ 4149~, T.O.H., RUN 4154~ OF 9 5/8 CSG. SET @ 4127~ KB, CMT W/ 100 SKS CLASS A W/ 2% Ca C/2 & 1/8 #/SK FLAKE, 50 SKS CLASS A W/ 1/8 #/SK FLAKE & 150 SKS CLASS A W/ 1.8 GAL/SK LATEX, .25% T.I.C., 1/8 #/SK FLAKE, PLUG DOWN @ 4:30 A.M., 11-13-00, W.O.C. (PER ROB).	Loaded from SMS		
Historical	SMS/PMS Data Load	11/16/2000	REPORT FOR 11-14-00: FINISH W.O.C., SET 90,000 LBS. ON 9 5/8 SLIPS, NIPPLING UP WELL HEAD & B.O.P. STOCK. REPORT FOR 11-15-00: FINISH NIPPLING UP B.O.P. STOCK & CHOKE MANIFOLD, PRESS TEST TO 4000 PSI, LAYING FLOW LINE. REPORT FOR 11-16-00: FINISHED HOOKING UP FLOW LINE, T.I.H. W/ 8 3/4 TRI-CONE DRLD. OUT CMT, DRY HOLE, T.O.H., L.D. TRI-CONE P.U. 8 3/4 BIT W/ HMR, T.I.H. SHUT DOWN FOR HOLIDAYS. REPORT FOR 11-17-00 THRU 11-24-00: S.I. FOR HOLIDAYS, WILL RESUME DRLG @ 6:00 A.M. 11-25-00. (PER ROB SCHINDLER)	Loaded from SMS		

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Operations Summary

Well 8343712019
47-099-02037P

Well Name: CNR FEE 232
Property Number: 824319
Field Office: HAMLIN, Route: DEV-HAM-RT 201 - D YEAGER
WAYNE, WEST VIRGINIA

Daily Operations

Job Category	Secondary Job Type	Start Date	Description of Work	24 Hr Summary	Day Total (Cost)	Cum To Date (...)
Historical	SMS/PMS Data Load	12/1/2000	<p>REPORT FOR 11-25-00: PREP. TO DRILL 8 3/4 HOLE @ 4149~.</p> <p>REPORT FOR 11-26-00: DRLG. 8 3/4 HOLE @ 4808~, DUSTING, D.U. - 3781~ - 2 DEGREES, 4103~ - 1 1/4 DEGREES, 4243~ - 3/4 DEGREES, 4408~ - 3/4 DEGREES.</p> <p>REPORT FOR 11-27-00: DRLG 8 3/4 HOLE @ 5480~, DUSTING, D.U. - 5065~ - 1 DEGREE.</p> <p>REPORT FOR 11-28-00: DRLG 8 3/4 HOLE @ 6260~, DUSTING.</p> <p>REPORT FOR 11-29-00: DRLD 8 3/4 HOLE TO 6508~, DUSTING, DRLD. 8 3/4 HOLE TO 6601~, FOAMING, TRIPPING OUT OF HOLE.</p> <p>REPORT FOR 11-30-00: FINISHED T.O.H., P.U. 8 3/4 TRI-CONE, T.I.H., LOADED HOLE W. KCL WATER. T.O.H, L.D.D.P. & D.C.~S.</p> <p>REPORT FOR 12-01-00: FINISHED T.O.H., LOG W/ SCHLUMBERGER, RUNNING 7 CSG. PREP. TO CMT.</p> <p>REPORT FOR 12-02-00: RAN 6576~ OF 7 CSG. SET @ 6572~ KB. CMT W/ 75 SKS CLASS A W/ 1.8 GAL/SK LATEX, .1 GAL/SK RETARDER, .2% FLAC, 1/8 #/SK FLAKE, 250 SKS 35/65 POZ/CLASS A W/ 1.8 GAL/SK LATEX, .1 GAL/SK RETARDER, 1/8 #/SK FLAKE, 75 SKS CLASS A W/ 1.8 GAL/SK LATEX, .1 GAL/SK RETARDER, .2% FLAC, 1/8 #/SK FLAKE, PLUG DOWN @ 12:50 P.M. 12-01-00, W.O.C. (PER ROB SCHINDLER)</p>	Loaded from SMS		
Historical	SMS/PMS Data Load	12/6/2000	<p>REPORT FOR 12-03-00: RAN GYRO & CBL W/ BAKER, CMT. TOP - 4122~, SET 70 K # ON SLIPS, NIPPLE UP WELL HEAD, NIPPLING UP B.O.P. STACK & CHOKE MANIFOLD. PREP. TO TEST.</p> <p>REPORT FOR 12-04-00: FINISH N.U., TEST B.O.P. STACK & CHOKE MANIFILD, T.I.H. W/ 6 1/4 TRI-CONE.</p> <p>REPORT FOR 12-05-00: FINISH T.I.H., DRLG. OUT CMT.</p> <p>REPORT FOR 12-06-00: DRLD OUT CMT., DRY HOLE, T.O.H. FOR 6 1/4 BIT W/ HMR, PRESS TEST KELLY COCKS, SLIP DRLG LINE, T.I.H., PREP. TO DRILL 6 1/4 HOLE. (PER ROB SCHINDLER)</p>	Loaded from SMS		
Historical	SMS/PMS Data Load	12/7/2000	<p>REPORT FOR 12-07-00: DRLY 6 1/4 HOLE @ 7014~, DUSTING W/ HMR, DU - 6467~, 1 1/4 DEGREES @ N 27 E, 6667~ - 1.5 DEGREES @ S 51 E, 6787~ - 1.5 DEGREES @ N 60 E, 6917~ - 2 DEGREES @ N 70 E. (PER ROB SCHINDLER).</p>	Loaded from SMS		

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Operations Summary

Well 824319 ^{05/17/2019}
47-099-02037P

Well Name: CNR FEE 232
Property Number: 824319
Field Office: HAMLIN, Route: DEV-HAM-RT 201 - D YEAGER
WAYNE, WEST VIRGINIA

Daily Operations

Job Category	Secondary Job Type	Start Date	Description of Work	24 Hr Summary	Day Total (Cost)	Cum To Date (...)
Historical	SMS/PMS Data Load	12/21/2000	<p>REPORT FOR 12-08-00: DRLD 6 1/4 HOLE TO 7222~, TRIPPING FOR BIT, DU - 7043~ - 1 3/4 DEGREES @ N 68 E.</p> <p>REPORT FOR 12-09-00: FINISHED BIT TRIP, RESUMED DRLG, DRLG. 6 1/4 HOLE @ 7666~ DUs - 7266~ - 1.75 DGRS @ N 68 E, 7521~ - 1.5 DGRS @ N 41 E.</p> <p>REPORT FOR 12-10-00: DRLG. 6 1/4 HOLE @ 8043~, DUSTING W/ HMR, DUs - 7775~ - 1 DGR @ N 21 E.</p> <p>REPORT FOR 12-11-00: DRLD 6 1/4 HOLE TO 8285~, DUSTING W/ HMR, TRIPPING FOR BIT, DU - 8189~ - 1.75 DGRS @ N 31 W.</p> <p>REPORT FOR 12-12-00: FINISHED TIH W/ 6 1/4 TRI-CONE, RESUME DRLG, DRLG. 6 1/4 HOLE @ 8496~, DUs - 8387~ - 1.75 DGRS @ N 27 E, 8462~ - 2.25 DGRS @ N 51 W, SHOWS 8308~ - 120 UNITS, 8387~ - 26 UNITS.</p> <p>REPORT FOR 12-13-00: DRLG. 6 1/4 HOLE @ 8938~, DUSTING W/ TRI-CONE, DUs - 8462~ - 2 1/4 DGRS @ N 51 W, 8646~ - 3 DGRS @ N 54 W, 8673~ - 2.5 DGRS @ N 43 W, 8794~ - 3 1/8 DGRS @ N 65 W SHOWS - 8520~ - 20 UNITS, 8590~ - 120 UNITS, 8610~ - 20 UNITS, 8640~ - 20 UNITS, 8724~ - 4 UNITS.</p> <p>REPORT FOR 12-14-00: DRLD. 6 1/4 HOLE TO 9098~, DUSTING, HOLE DAMP @ 9098~ WENT TO SOAP, DRLG 6 1/4 HOLE @ 9274~. DUs - 8862~ - 3 1/4 DGRS @ N 64 W, 9114~ - 3 DGRS @ N 15 W, SHOWS - 8758~ - 160 UNITS, 9029~ - 4 UNITS.</p> <p>REPORT FOR 12-15-00: DRLD 6 1/4 HOLE TO 9282~, FOAMING, TD, LOAD HOLE W/ 3% KCL WATER, TOH, W.O. SCHLUMBERGER, LOGGING W/ SCHLUMBERGER.</p> <p>REPORT FOR 12-16-00: FINISHED LOGGING W/ SCHLUMBERGER, L.D.D.C.s TIH W/ D.P. - OPENED ENDED, W.O. DOWELL.</p> <p>REPORT FOR 12-17-00: R.U. DOWELL - PLUG BACK TO CASING AS FOLLOWS: 9251~ - 8951~ - 60 SKS CLASS A W/ 1.8 GAL/SK LATEX; 8951~ - 8359~ - 6% GEL; 8359~ - 8159~ - 40 SKS CLASS A W/ 1.8 GAL/ SK LATEX; 8159~ - 7057~ - 6% GEL; 7057~ - 6509~ - 110 SKS CLASS A; 6509~ - SURFACE - 6% GEL & 3% KCL WATER L.D.D.P., SHUT IN MASTER VALVE, RELEASED RIG.</p> <p>REPORT FOR 12-18-00: RIGGING DOWN ROTARY RIG.</p> <p>REPORT FOR 12-19-00: R.D.R.R. & M.O.</p> <p>REPORT FOR 12-20-00: M.O.R.R.</p> <p>REPORT FOR 12-21-00: SHUT DOWN MOVE DUE TO WEATHER, WILL RESUME 12-28-00. (PER ROB)</p>	Loaded from SMS		

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Office of Oil and Gas
MAR 14 2019
WV Department of
Environmental Protection

WW-4A
Revised 6-07

1) Date: March 11, 2019
2) Operator's Well Number 824319
3) API Well No.: 47 - 47-099 - 02037

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Roma Crawford</u>	Name <u>None</u>
Address <u>12310 Clark Drive</u>	Address _____
<u>Orient, Ohio 43146</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Southern Region Industrial Inc.</u>
_____	Address <u>Three Commercial Place</u>
_____	<u>Norfolk, Virginia 23510</u>
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Allen Flowers</u>	(c) Coal Lessee with Declaration
Address <u>165 Grassy Lick Lane</u>	Name <u>Lexington Coal Company, LLC - Attn: Dave Decker</u>
<u>Liberty, WV 25124</u>	Address <u>123 Long Sheals Branch PO Box 58370</u>
Telephone <u>304-552-8308</u>	<u>Alum Creek, WV 26008 Charleston, WV 25358</u>

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator Core Appalachia Operating, LLC
 By: [Signature] Jessica Greathouse
 Its: Manager - EHS & Administration Services
 Address P.O. Box 6070
Charleston, WV 25362
 Telephone 304-353-5240

Subscribed and sworn before me this 12th day of March 2019
Phyllis A. Copley Notary Public
 My Commission Expires September 16, 2023

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-9
(5/16)

API Number 47 - 099 - 02037
Operator's Well No. 824319

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Core Appalachia Operating, LLC OP Code 494518671

Watershed (HUC 10) Kiah Creek of Twelvepole Quadrangle Kiahsville

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: Plugging returns/Cement - Will utilize above ground tanks

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Any fluid recovered will be hauled to a Core tank battery and disposed of properly)

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

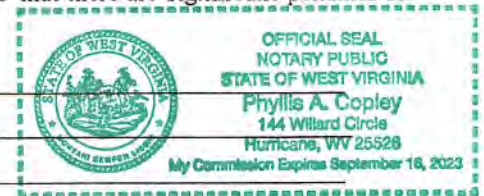
-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]
Company Official (Typed Name) Jessica Greathouse
Company Official Title Manager - EHS and Administrative Services



Subscribed and sworn before me this 13th day of March, 2019

Phyllis A. Copley Notary Public

My commission expires September 16, 2023

RECEIVED
Office of Oil and Gas
MAR 14 2019
WV Department of Environmental Protection

Proposed Revegetation Treatment: Acres Disturbed 1 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount _____ lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike	5	Alsike Clover	5
Annual Rye	15		

Attach:
Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: Completed site inspection on 3-19-2019.

Title: Inspector Date: 3-20-2019

Field Reviewed? Yes No

Diagram of Well 824319

API 47-099-02037

Field Office – Hamlin

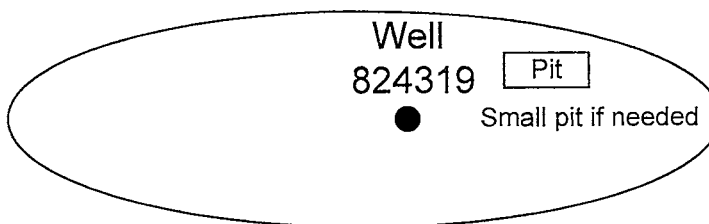
County - Wayne



Sediment Control

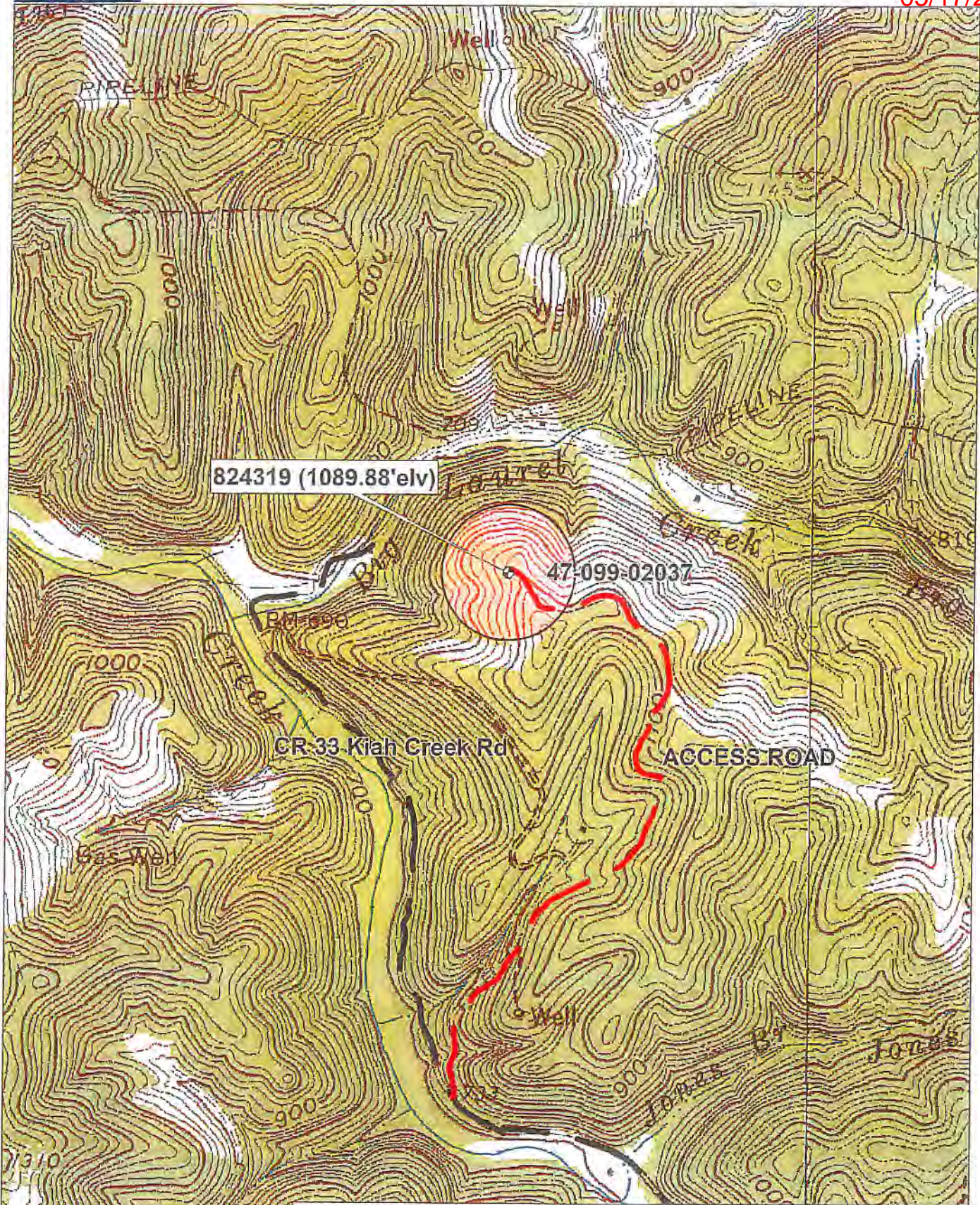


Surface Owner:
Roma Crawford



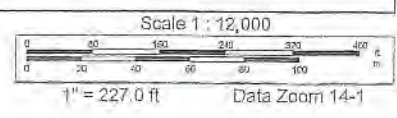
Note: No Land Application if pit is used

Site Plan



WELL 824319 P&A TOPO MAP

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WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-099-02037 WELL NO.: 824319

FARM NAME: CNR Fee 232

RESPONSIBLE PARTY NAME: Core Appalachia Operating, LLC

COUNTY: Wayne DISTRICT: Lincoln

QUADRANGLE: Kiahsville

SURFACE OWNER: Roma Crawford

ROYALTY OWNER: Core Appalachia Operating, LLC

UTM GPS NORTHING: 4213339.66m

UTM GPS EASTING: 389661.35m GPS ELEVATION: 332.20m (1089.88' elev)

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Signature

EHS Specialist
Title

03/12/2019
Date