



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, March 29, 2021
WELL WORK PLUGGING PERMIT
Vertical Plugging

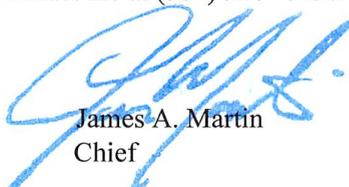
ALLIANCE PETROLEUM CO., LLC
101 MCQUISTON DRIVE
JACKSON CENTER, PA 16133

Re: Permit approval for ELKEM 8
47-019-00702-00-00

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: ELKEM 8
Farm Name: ELKEM METALS CO.
U.S. WELL NUMBER: 47-019-00702-00-00
Vertical Plugging
Date Issued: 3/29/2021

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4701900702P

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.
4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

04/02/2021

4701900702P

- 1) Date January 11, 2021
- 2) Operator's Well No. 12954
- 3) API Well No. 47-019-00702

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 X or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 920 ft Watershed Kanawha River
District Valley County Fayette Quadrangle Montgomery

6) Well Operator Alliance Petroleum Company 7) Designated Agent Jeff Mast
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 Gary Kennedy Name Diversified Production, LLC
Address 66 Old Church Lane Address 1951 Pleasant View Ridge Road
Pipestem, WV 25979 Ravenswood, WV 26164

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

SEE ATTACHED

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

Work order approved by inspector  Date 1/15/21

04/02/2021

PLUGGING PROGNOSIS

West Virginia, Fayette County

API # 47-019-00702

38.1399227603897, -81.2634293657984

Nearest ER: Montgomery General Hospital 401 Sixth Ave, Montgomery, WV 25136

Casing Schedule

13 3/8" @ 44'

9 5/8" @ 80'

7" csg @ 1144' cemented to surface w/ 180 sks.

4 1/2" csg @ 2161' cemented w/ 115 sks est. TOC @ 940'

TD 2248'

Completion: Frac

1st Stage: Weir (1964'-2110')

2nd Stage: Big Injun (1878'-1925')

3rd Stage: Big Lime (1808'-1827')

Fresh Water: 649'**Saltwater:** None Reported**Coal:** 767', 959'**Gas Show:** see completion**Elevation:** 921'

1. Notify inspector, Gary Kennedy 304-382-8402, 48 hrs. prior to commencing operations.
2. Record Pressures on csg.
3. Tag TD w/ wireline.
4. TIH w/ tbg to 2110'. Kill well as needed with 6% bentonite gel.
5. Pump 402' Class A cement plug from **2110'-1708'(Weir, Injun, and Lime completions)**
 - a. Tag TOC and top off as needed.
6. TOOH w/ tbg to 1708'. Load hole with 6% bentonite gel from: 1708'-1009'. TOOH LD tbg.
7. Freepoint, cut, and pull 4 1/2" csg. Set 100' C1A cement plug across cut. Do not omit any plugs listed below. Perforate as needed.
8. TIH w/ tbg to 1009'. Pump 410' C1A cement plug from **1009'-599'.** (Coal, elevation, and FW).
9. TOOH w/ tbg to 599'. Pump 6% bentonite gel from 599'-100'.
10. TOOH w/ tbg to 100'. Pump 100' C1A cement plug from **100'-0'.** (Surface). TOOH LD tbg.
11. Erect monument with API#, date plugged, & company name.
12. Reclaim location and road to WV-DEP specifications.

(4 1/2" CASING CUT
SHOULD BE INSIDE
7" CASING.)

WR-35

Reviewed TMG
Recorded _____

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: ELKEM METALS CO.

Operator Well No.: ELKEM #8 (B66)

LOCATION: Elevation: 920.79

Quadrangle: MONTGOMERY

District: VALLEY

County: FAYETTE

Latitude: 9710

Feet South of 38 Deg. 10Min. 0 Sec.

Longitude 3960

Feet West of 81 Deg. 15 Min. 0 Sec.

Company: BOWIE, INC.
132 WALDECK STREET
CLARKSBURG, WV

Agent: WILLIAM H. BOWIE

Inspector: STEVE CASEY
Permit Issued: 04/06/92
Well work Commenced: 04/27/92
Well work Completed: 05/04/92
Verbal Plugging _____
Permission granted on: _____
Rotary Cable _____ Rig _____
Total Depth (feet) 2248'
Fresh water depths (ft) 649'

Salt water depths (ft) _____
N/A

Is coal being mined in area. (Y/N)? N
Coal Depths (ft): 767-77,959-62

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill. Cu. Ft
13 3/8"	44'	-	--
9 5/8"	80'	80'	--
7"	1144'	1144'	180 sks
4 1/2"	2161'	2161'	115 sks

OPEN FLOW DATA

Producing formation: Big Lime, Injun, Weir Pay zone depth (ft) 1807-2110
Gas: Initial open flow Show MCF/d Oil: Initial open flow N/A Bb.
Final open flow 713 MCF/d Final open flow N/A Bb.
Time of open flow between initial and final tests 8 Hr
Static rock Pressure 525 psig (surface pressure) after 50 Hr

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bb.
Final open flow _____ MCF/d Final open flow _____ Bb.
Time of open flow between initial and final tests _____ Hr
Static rock Pressure _____ psig (surface pressure) after _____ Hr

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

RECEIVED
Office of Oil & Gas
Permitting
MAY 03 92
WV Division of
Environmental Protection

For: BOWIE, INC.
By: W. Bowe
Date: 5/27/92
RECEIVED
Office of Oil and Gas
JAN 14 REC'D

WV Department of
Environmental Protection

FAY 0702

4701900702P

Stage I (1964-2110) 19 holes, 500 gal 15% HCL, 500 sks sand, 97,000 SCF N₂, 469 BBL H
 Stage II (1878-1925) 9 holes, 500 gal 15% HCL, 2000 gal 28% HCL, 24,000 SCF N₂
 Stage III (1808-1827) 10 holes, 500 gal 15% HCL, 2000 gal 28% HCL, 20,000 SCF N₂

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal, oil an
Fill			0	80	
Sand & Shale			80	372	
Sand			372	519	
Sand & Shale			519	567	
Sand			567	767	Damp @ 649'
Coal			767	777	
Sand & Shale			777	860	
Sand			860	959	
Coal			959	962	
Sand			962	1092	
Sand & Shale			1092	1283	
Ravencliff			1283	1311	
Shale			1311	1500	
Maxton			1500	1545	
Little Lime			1545	1617	
Shale			1617	1664	
Big Lime			1664	1915	Gas Show
Big Injun			1915	1950	Gas Show
Shale			1950	2010	
Weir			2010	2120	Gas Show
Shale			2120	2248 DTD	

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 Office of Oil & Gas
 Permitting
 JAN 03 1992
 WV Division of
 Environmental Protection

Office of Oil and Gas

(Attach separate sheets as necessary)

JAN 14 REC'D

WV Department of
 Environmental Protection
 04/02/2001

264E1
 13492

WW-4A
Revised 6-07

1) Date: January 11, 2021
2) Operator's Well Number
12954
3) API Well No.: 47 - 019 - 00702

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

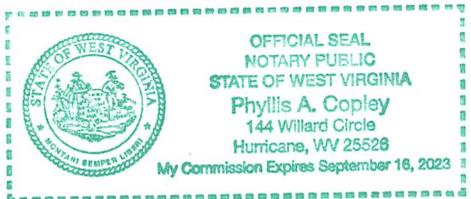
4) Surface Owner(s) to be served:	5) (a) Coal Operator:
(a) Name <u>WV Environmental, Inc.</u>	Name _____
Address <u>P.O. Box 266</u>	Address _____
<u>Alloy, WV 25002</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Elkem Metals Co.</u>
	Address <u>RR 60 Box East</u>
	<u>Alloy, WV 25002</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Gary Kennedy</u>	(c) Coal Lessee with Declaration
Address <u>68 Old Church Lane</u>	Name _____
<u>Pipestem, WV 25979</u>	Address _____
Telephone <u>304-382-8402</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 Alliance Petroleum Company, LLC.
 By: [Signature] Jeff Mast
 Title: Director Production
 Address P.O. Box 6070
Charleston, WV 25362
 Telephone 304-543-6988

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Office of Oil and Gas
JAN 14 REC'D

Subscribed and sworn before me this 11th day of January, 2021
Phyllis A. Copley Notary Public
 My Commission Expires September 16, 2023

WV Department of Environmental Protection

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.

4701900702P

Well 12954
API 47-019-00702

7017 1450 0002 3854 1068

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Alloy, WV 25002

OFFICIAL USE

Certified Mail Fee	\$3.55	
Extra Services & Fees (check box, add fee as appropriate)	\$2.85	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total Postage	\$7.80	12954

Sent To: Elkem Metals Company
RR 60 Box East
Alloy, WV 25002

Postmark Here: 0523 01
01/12/2021

PS Form 3800, April 2015 PSN 7530-02-000-9047

7017 1450 0002 3854 1105

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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For delivery information, visit our website at www.usps.com®.

Alloy, WV 25002

OFFICIAL USE

Certified Mail Fee	\$3.55	
Extra Services & Fees (check box, add fee as appropriate)	\$2.85	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total Postage	\$7.80	12954

Sent To: WV Environmental, Inc.
P.O. Box 266
Alloy, WV 25002

Postmark Here: 0523 01
01/12/2021

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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WV Department of
Environmental Protection

04/02/2021

SURFACE OWNER WAIVER

Operator's Well Number

PURSLEY DENA KEM-298 (47-035-01827)

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT. WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have FIVE (5) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
2) The soil erosion and sediment control plan is not adequate or effective;
3) Damage would occur to publicly owned lands or resources;
4) The proposed well work fails to protect fresh water sources or supplies;
5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

RECEIVED
Office of Oil and Gas

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,

Handwritten signature of Gladys J. Wade

Date 1-4-21 Name By Its

Signature

Date 04/02/2021

WW-9
(5/16)

API Number 47 - 019 - 00702
Operator's Well No. 12954

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

Operator Name Alliance Petroleum Company, LLC OP Code 494506333

Watershed (HUC 10) Kanawha River Quadrangle Montgomery

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.?

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 Diversified 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) _____

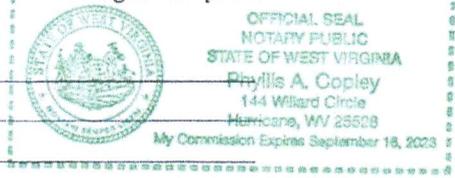
-Landfill or offsite name/permit number? _____

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
Company Official (Typed Name) Jeff Mast
Company Official Title Director Production



Subscribed and sworn before me this 11th day of January, 20 21

Notary Public

My commission expires: September 16, 2023

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:

Title: Inspector Date: 1/15/21

Field Reviewed? () Yes () No



Diversified Gas & Oil Corporation
 100 Diversified Way
 Pikeville KY, 41051

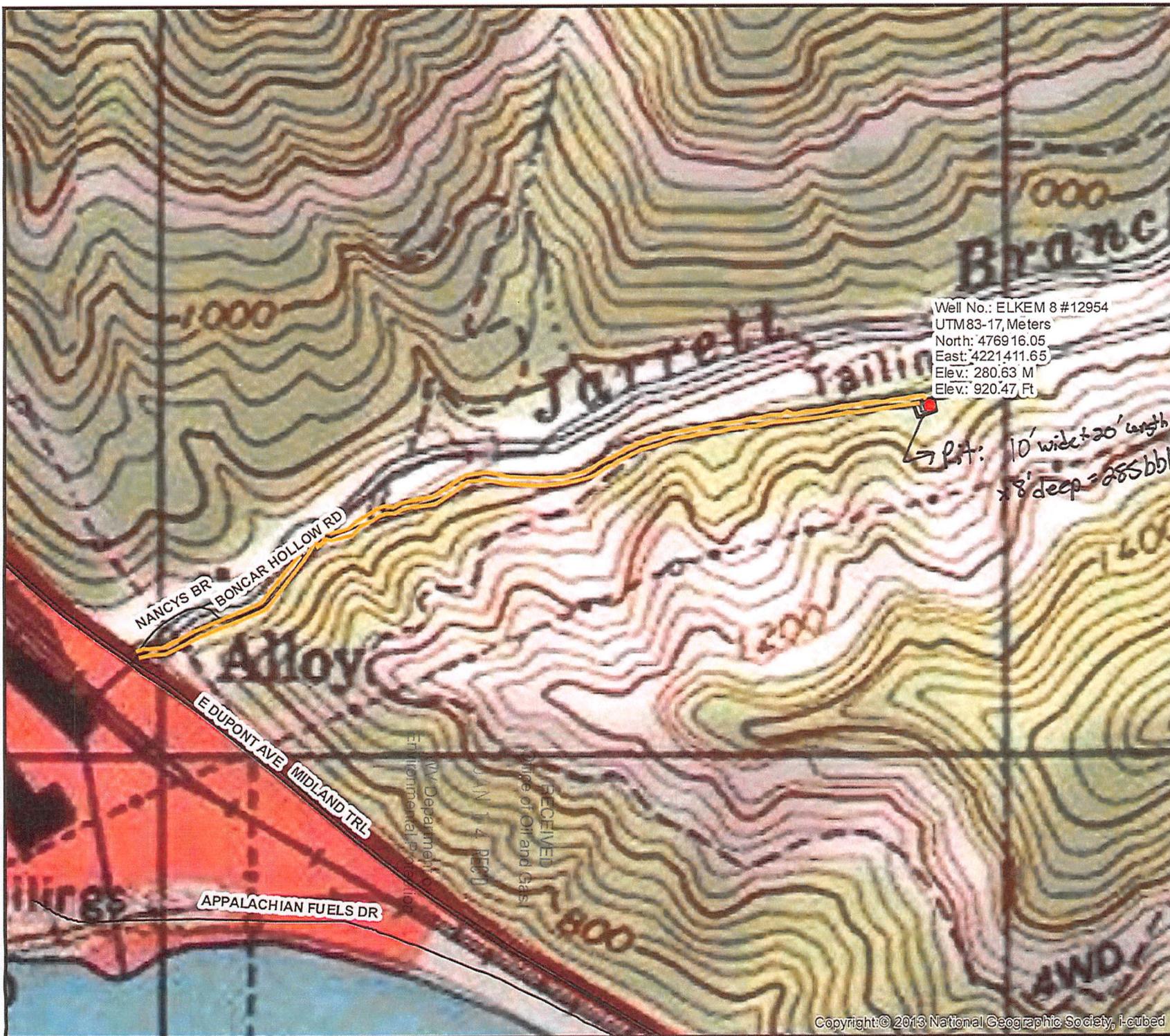
ELKEM 8 #12954

Plugging Map

47-019-00702

Legend

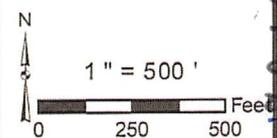
- Well
- Access Road
- Pits
- Pad
- Public Roads



Well No.: ELKEM 8 #12954
 UTM83-17, Meters
 North: 476916.05
 East: 4221411.65
 Elev.: 280.63 M
 Elev.: 920.47 Ft

→ Pit: 10' wide x 20' length
 x 8' deep = 288 bbl

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 JAN 14 2010
 WV Department of
 Environmental Protection



4701900702P

4701900702P

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-019-00702 WELL NO.: 12954

FARM NAME: Elkem Metals Company

RESPONSIBLE PARTY NAME: Alliance Petroleum Co., LLC

COUNTY: Fayette DISTRICT: Valley

QUADRANGLE: Montgomery

SURFACE OWNER: WV Environmental Inc.

ROYALTY OWNER: Elkem Metals Co.

UTM GPS NORTHING: 4,221,411.65

UTM GPS EASTING: 476,916.05 GPS ELEVATION: 920'

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:
Survey grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____
Mapping Grade GPS X : Post Processed Differential X
Real-Time Differential ____

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WV Department of
Environmental Protection

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] Director Production 1/11/2021
Signature Title Date

04/02/2021