

#### 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 EM3-B41 47-019-00668-00-00

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: EM3-B41

ELKEM METALS CO.

Farm Name:

U.S. WELL NUMBER: 47-019-00668-00-00

Date Issued: 3/29/2021

Vertical Plugging

Promoting a healthy environment.

#### **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. <u>Failure to adhere to the specified</u> 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.

WW-4B Rev. 2/01

1) Date Jan	uary 11	,	2021
2) Operato:	r's		
Well No	. 12947		
3) API Wel:	1 No.	47-019	- 00668

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

		AIT TO PLUG AND ABANDON		
4)	Well Type: Oil/ Gas X/ Liquid			
	(If "Gas, Production A or Und	derground storage) Deep/ Shallow X		
5)	Location: Elevation 648 ft	Watershed Kanawha River		
~ /	District Valley	County Fayette Quadrangle Montgomery		
	Well Operator Alliance Petroleum Company	7) Designated Agent Jeff Mast		
6)	Address P.O. Box 6070	Address P.O. Box 6070		
	Charleston, WV 25362	Charleston, WV 25362		
	Oldinoston, TTV 2002			
8)	Oil and Gas Inspector to be notified	9) Flugging Contractor		
	Name Gary Kennedy	Name Diversified Production, LLC		
	Address 68 Old Church Lane	Address 1951 Pleasant View Ridge Road		
	Pipestem, WV 25979	Ravenswood, WV 26164		
0)	Work Order: The work order for the man	ner of plugging this well is as follows:		
0)				
0)				
0)				
0)				
0)				
	SEE			
(ot:	SEE	ATTACHED		

#### PLUGGING PROGNOSIS

West Virginia, Fayette County API # 47-019-00668 38.1360036010394, -81.2792331269707 Nearest ER: Montgomery General Hospital 401 Sixth Ave, Montgomery, WV 25136

#### Casing Schedule

16" @ 61" 11 3/4" @ 130' cemented to surface w/ 120 sks 8 5/8" csg @ 846' cemented to surface w/ 256 sks. 4 1/2" csg @ 1943' cemented to surface w/ 250 sks. TD @ 2031'

#### Completion

1st Stage: Weir (1780'-1800') 2nd Stage: Big Injun (1685'-1730')

Fresh Water: 52', 77', 130', 178', 341'

Saltwater: None Reported

Coal: 184'

Gas Show: Injun 1685'-1730', Weir 1780'-1800'

Elevation: 787'

- 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 1800'. Kill well as needed with 6% bentonite gel.
- 5. Pump 215' Class A cement plug from 1800'-1585' (Weir and Injun completions)
  - a. Tag TOC and top off as needed.
- 6. TOOH w/ tbg to 1585'. Load hole with 6% bentonite gel from: 1585'-787'.

- TOOH w/ tbg to 787'. Pump 100' C1A cement plug from 787'-687' (Elevation).
   TOOH w/ tbg to 687'. Pump 6% bentonite gel from 687'-391'.
   TOOH w/ tbg to 391'. Pump 100' C1A cement plug from 391'-0'. (Fresh Water, Coal, and Surface). TOOH LD tbg.
- 10. Erect monument with API#, date plugged, & company name.
- 11. Reclaim location and road to WV-DEP specifications.

	WR-35		8 B T	# 47-19-66	<b>50</b>	
	RECEIVED Office of " 1 (s) State of Wes	st Virgini		# 41-13-00	<b>,</b>	
	Division of Enviror	ıme…tal Pr	otection			
	EB 0 8 94 Section of Oi	ii and Gas	•			
	Wy Davision " Well Operator's Re	eport of W	Tell Work			•
	many in Emprovemental Pt   SCHOOL	Operator	Well No.: E	11.mm #2 12	F	RECEIVED
	reake. F. 4 Lien gerran			TKEM AT Me.	Office	of Oil and Gas
	LOCATION: Elevation: 787.00 Quadi	rangle: Mo	urgomëra	•		
	District: Valley			Fayette	JAI	N 1 4 REC'D
	Latitude: 9610 Feet Soul Longitude 9280 Feet West	th of 38 t of 81	Deg. 12 Min. Deg. 10 Mir	.30 Sec. 1.0 Sec.	• \\	
					VVV	Department of nental Protection
	Company:BOWIE, INC. P.O. BOX 1430	Casing	Used in	Left	Cement	
	CLARKSBURG, WV 26301-1430				Fill Up.	
	Agent: WILLIAM H. BCWIE	Tubing	Drilling	in Well	Cu. Ft.	
		Size		[	1	
	Inspector: Rodney Dillon					
	Permit Issued: 10/07/91 Well work Commenced: 9-18-91	16"	61'	61'		
	Well work Completed: 10-3-91		100	120	100-1	
	Verbal Plugging Permission granted on:	11 3/4	130	130	120sk	
	Notary x Cable Rig					
	Total Depth (feet) 2031DTD Fresh water depths (ft)	8 5/8	846	846	1 256sk	
	52,77,130,178,341	:				
	Salt water depths (ft)	4 1/2	1943	1943	) 250sk	
	Is coal being mined in area (Y/N)? N			·	!	
	Coal Depths (ft): 184, 188	 	 	 <i></i>		
	OPPU PLOU PLOU	•				
	OPEN FLOW DATA					
	Producing formation Weir		Pay_zone (			
	Gas: Initial open flowshow MCF, Final open flow 375 MCF,	/d Oil: II /d F:	nitial open inal open fi	tiow na low na	Bbl/cBbl/c	
	Time of open flow between in	nitial and	i final test	ts 4	Hour:	
	Static rock Pressure 350 psic	g (surface	e pressure)	after 24	Hour:	
	Second producing formation Big In	lun	Pay zone	depth (ft		
	Gus: Initial open flow show MCF, Final open flow commingled MCF,	/d Oil: II	nitial open inal open f	Elow	na Bbl/c	
	Time of open flow between in	nitial and	d final test	ts .	4 Hour:	
	Static rock Pressure Commingled psi	g (surface	e pressure)	after	Hour:	
	Nome . 41 2501 62 2012 2012			. <b></b>		
	NOTE: ON BACK OF THIS FORM PUT THE INTERVALS, FRACTURING OR STIMULATING	FOLLOWING PHYSICA	3: 1). DET/ AL CHANGE.	AILS OF P. ETC. 2).	ERFORATEI THE WEL:	
	LOG WHICH IS A SYSTEMATIC DETAILED	GEOLOGICA	AL RECORD (	OF ALL FO	RMATIONS	
•	INCLUDING COAL ENCOUNTERED BY THE WELF	LBURE.				
	For: BOWIE, 1	INC.	^	•	•	
	. By:	Xxon	ur Boi	vil		
	nato.					

TUITI IV-35

DETAILS OF PENDIMEN THENMS. FINCTURED ON STITUINTING, PHYSICAL CHINEE, EIC.

I (1780-1800) 14 holes, Sugal 15% Hel, 400BBL H20, 450SKS 20/40SAND

II (1686-1730) 16 holes, Sugal 15% Hel, 350BBL H20, 360SKS 20/40 SAND

. HELL LOG .

EDIMINATION COTON INTO OF SOLL	TOP FÆEF	DOPTON FEET	Jir:Intling likilöhelo	n of all frank
	0	49	url salt water, coa	I, oll and dos
FILL		184	domp8 52' , 4" Hzo	or ment at a second of the a
Sand of shale	49		1 Amps 32 , 4 1178	A 11, 1 displayer
Cal	184	188		
Saml 434-le	188	335		RECEIVED
Seml	335	749	6" HzoC. 341'	Office of Oil and Gas
Red Rock & Shele	749	120	Damp @960 \$ 194	JAN 14 REC'D
Send & Jaile	. 920	1104 .		WV Department of
SAND	1104	1166		Environmental Protection
Sent of shill	1166	1355		
Little Lime	1355	/395		÷
shale	1315	1436		•
Big Lime .	1436	1712		•
Big In Jun	1710	1747	GAZ: SHOW	
Shale & Saul ?	1747	1766	:	
WEIR	1766	1775	GAS SHOW	
Shale	1775	1860		
LONEA WEIR	1860	1895		• • •
Shile	1895	2031	DTA	

WW-4A Revised 6-07 1) Date: January 11, 2021
2) Operator's Well Number 12947
3) API Well No.: 47 - 019 - 00668

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

	Surface Own (a) Name	ner(s) to be served:  WV Manufacturing, LLC	5) (a	) Coal Operator Name	
	Address	P.O. Box 158		Address	
		Alloy, WV 25002			
	(b) Name			(b) Coal Ow	ner(s) with Declaration
	Address			Name	Elkem Metals Co.
				Address	RR 60 Box East
				2.000.	Alloy, WV 25002
	(c) Name			Name	
	Address			Address	
6) 1	nspector	Gary Kennedy		(c) Coal Les	see with Declaration
	Address	68 Old Church Lane		Name	and the state of t
		Pipestem, WV 25979		Address	
	Telephone	304-382-8402			
	UC. (1-2-17)				

#### 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.

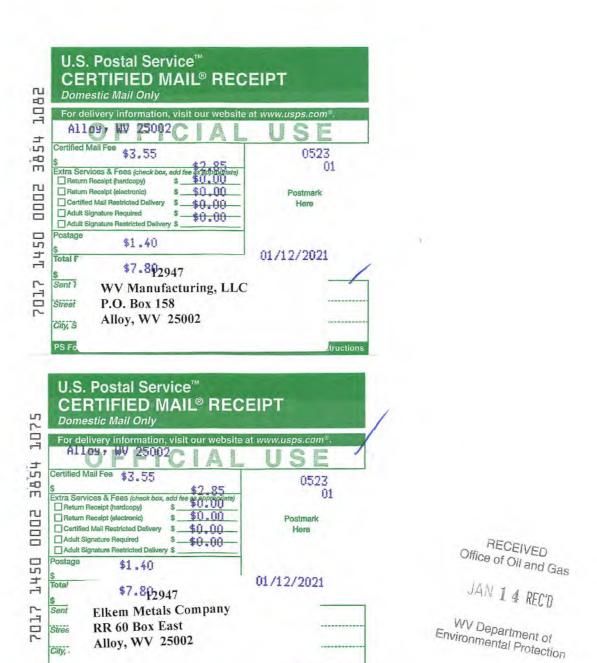
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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.

	DEFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA	Well Operator By:	Alllance Petroleum, LLC  Jeff Mast	
	Phyllis A. Copley 146 Willard Circle	Its	Director Production	The second second
100	Hurricane, WV 25528	Address	P.O. Box 6070	RECEIVED
the same of the contract of th	Commission Expires September 18, 1	1023	Charleston, WV 25362	Office of Oil and Gas
	***************	Telephone	304-543-6988	
				JAN 1 4 REC'D
Subscribed an	d sworn before me thi	s 11 th de	ay of January, 2001 Notary Public	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 <a href="mailto:depprivacyoffice@wv.gov">depprivacyoffice@wv.gov</a>.



#### **SURFACE OWNER WAIVER**

Operator's Well Number

PKE 775 (47-035-01646)

#### 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

RECEIVED
Office of Oil and Gas

JAN 1 + PET'D

Time Limits and methods for filing comments. The law requires these materials to be serviced 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.

#### **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

FOR EXECUTION BY A CORPORATION,

BY A CORPORATION,

Name
By

Signature

04/02/2021

Date

WW-9 (5/16) API Number 47 019 - 00668

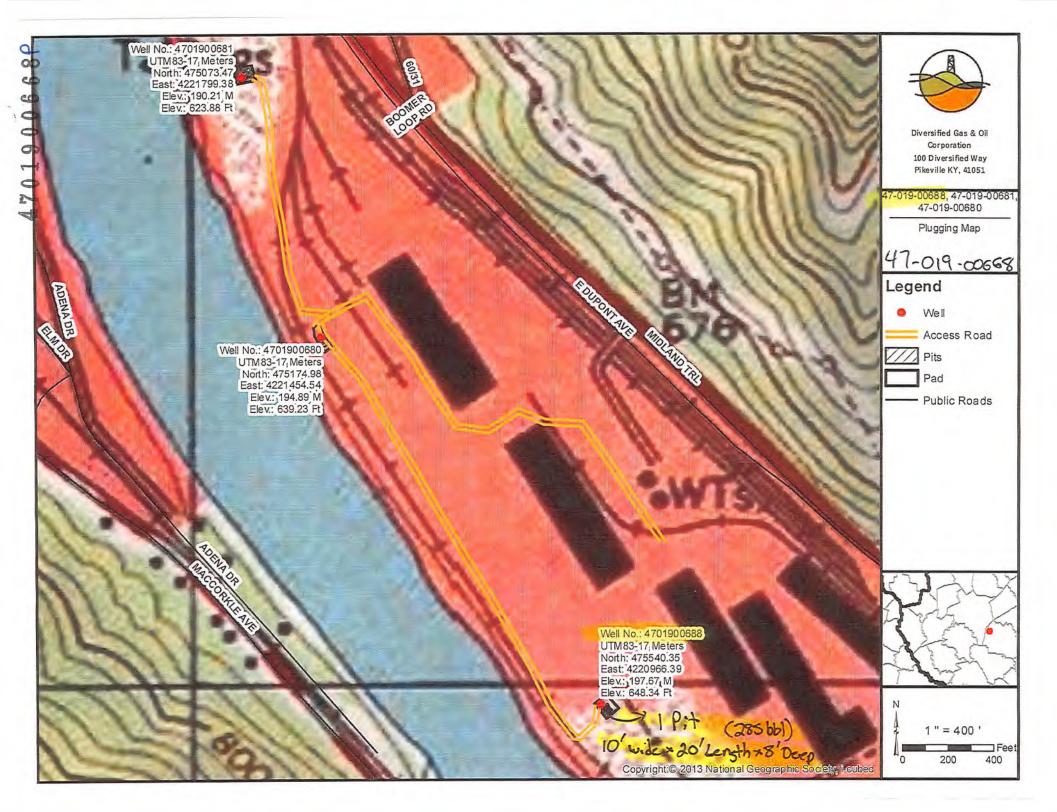
Operator's Well No. 12947

## 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	_
	Quadrangle Montgomery	_
Do you anticipate using more than 5,000 bbls of water to complete the	e proposed well work? Yes No	
Will a pit be used? Yes No No		
If so, please describe anticipated pit waste: Plugging return	ns/cement - will utilize above ground tanks	
Will a synthetic liner be used in the pit? Yes Vo	If so, what ml.?	
Proposed Disposal Method For Treated Pit Wastes:		
Land Application (if selected provide a cor		4.1
Underground Injection ( UIC Permit Number	ber	)
Off Cita Disposal (Supply form WW-9 for	r disposal location)	o.
Other (Explain Any fluid recovered will be h	hauled to a Diversified tank battery and disposed of properly.	_ des
Will closed loop systembe used? If so, describe:		_
Drilling medium anticipated for this well (vertical and horizontal)? A	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		
-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 West Virginia solid waste facility. The notice shall be provided within where it was properly disposed.	n 24 hours of rejection and the permittee shall also disc	blose
I certify that I understand and agree to the terms and condit on April 1, 2016, by the Office of Oil and Gas of the West Virginia provisions of the permit are enforceable by law. Violations of any term or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examapplication form and all attachments thereto and that, based on my in the information, I believe that the information is true, accurate, and	Department of Environmental Protection. I understand the protection of the general pennit and/or other application and am familiar with the information submitted aquiry of those individuals immediately responsible for of domplete. I am aware that there are significant pen	d that the cable law d on this obtaining
submitting false information, including the possibility of fine or impri	isonment.	OFFICIAL SEAL
Company Official Signature		NOTARY PUSLIC
Company Official (Typed Name) Jeff Mast		Phyllis A. Copley 144 Wilard Crole
Company Official Title Director Production	wy comme	Hurricune, WV 2552d million Expline September 16, 2023
Subscribed and sworn before me this	Notary Public	
My compission expires: September 16, 2023		

Operator's Well No. 12947

Lime 3	Tons/acre or to correct	et to pH6.5	
Fertilizer type	10-20-20 or equivalent		
Fertilizer amount_	,	lbs/acre	
Mulch 2		_Tons/acre	
		Seed Mixtures	
To	emporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike	5	Alsike Clover	5
Annual Rye	15		
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or	pit will be land applied, pr	d application (unless engineered plans inclu ovide water volume, include dimensions (L,	ding this info have W, D) of the pit
provided). If water from the (L, W), and area in acres, or Photocopied section of invol	pit will be land applied, pr f the land application area.	ovide water volume, include dimensions (L,	W, D) of the pit.
Maps(s) of road, location, porovided). If water from the (L, W), and area in acres, or Photocopied section of involved plan Approved by:	pit will be land applied, pr f the land application area.	ovide water volume, include dimensions (L,	W, D) of the pit.
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WW-7 8-30-06



# West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LOCAT	ION FORM: GPS	
<sub>API</sub> : 47-019-00668	WELL NO.:	47
FARM NAME: Elkem Metals C	ompany	
RESPONSIBLE PARTY NAME: Allia	nce Petroleum Co., LLC	
COUNTY: Fayette	DISTRICT: Valley	
QUADRANGLE: Montgomery		
SURFACE OWNER: WVA Manuf	acturing LLC	
ROYALTY OWNER: Elkem Meta	als Co.	
UTM GPS NORTHING: 4,220,966	.39	
UTM GPS EASTING: 475,540.35		
preparing a new well location plat for a plug above well. The Office of Oil and Gas will at the following requirements:  1. Datum: NAD 1983, Zone: 17 No height above mean sea level (MS 2. Accuracy to Datum – 3.05 meter 3. Data Collection Method: Survey grade GPS: Post Processed	orth, Coordinate Units: meters, Altitude (SL) – meters.	meet
	ferential	
Mapping Grade GPS X : Post Proces		RECEIVED
Real-Time	Differential	Office of Oil and Gas
4. Letter size copy of the topogra I the undersigned, hereby certify this data is belief and shows all the information require prescribed by the Office of Oil and Gas.		WV Department of
Ant Dire	ector Production 1/11/20	Environmental Protection 021
Signature	Title Date	