

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, March 12, 2019 WELL WORK PLUGGING PERMIT Vertical Plugging

JAY-BEE OIL & GAS, INC. 1720 RT. 22 E

UNION, NJ 070830000

Re:

Permit approval for J. POWELL 2

47-073-00791-00-00

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: J. POWELL 2

Farm Name: LILLY, DONALD

U.S. WELL NUMBER: 47-073-00791-00-00

Vertical Plugging

Date Issued: 3/12/2019

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. 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.

WW-4B Rev. 2/01

1) Date November 12	, 20 <u>18</u>
2)Operator's	
Well No. J. Powell #2	2
3) API Well No. 47-	- 073 - 00 791

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

	OFFICE OF	OIL AND GAS
	APPLICATION FOR A PERM	AIT TO PLUG AND ABANDON
4)	Well Type: Oil XX / Gas XX / Liquid	d injection/ Waste disposal/
	(If "Gas, Production XX or Und	derground storage) Deep/ Shallow
۲,	Location: Elevation 1015'	Watershed Sugar Creek
5)	District Union	County Pleasants Quadrangle Bens Run
	DISCITED THE	2 add 2 strip =
6)	Well Operator Jay-Bee Oil & Gas, Inc.	7) Designated Agent Randy Broda
•	Address 3570 Shields Hill Rd	Address 3570 Shields Hill Rd.
	Cairo, WV 26337	Cairo, WV 26337
		0.17.
8)	Oil and Gas Inspector to be notified Name Cragin Blevins	9) Plugging Contractor Name Patchwork Oil & Gas, LLC
	Address 1407 19th St.	Address Po Box 168
	Vienna, WV 26105	Davisville, WV 26142
,	Work Order attached.	
wor}	c can commence.	il and gas inspector 24 hours before permitted gin Blavins Date 1/3/2019
	c can commence. c order approved by inspector Cra	gin Blevins Date 1/3/2019

Work Order Attachment

47-073-00791

Powell #2

Run Bond log when necessary to find cement top. Gel spacers in between all cement plugs.

- 1. Prepare plugging permit application.
- 2. Certify to surface and coal owners as necessary.
- 3. Certify and/or email to designated State inspector for signature.
- 4. Once all signatures are obtained, copy for our records and certify at the state level for approval.
- 5. Receive plugging permit good for 2 years.
- 6. Notify the designated State inspector 24 hours prior to commencing operations.
- 7. Move rig and equipment to location.
- 8. Attempt to clean out well bore, pull rods and tubing, if necessary.
- 9. Verify total depth of bridge plug at 2210'.
- 10. Drill out bridge plug.
- 11. Verify total depth of 2995'
- 12. Run tubing to 50' below the bottom of the first set of perforations (2892-2887) and 50' above the perforations. Set bottom plug with Class A cement with no more than 3% CaCl2 and no other additives from 2942' to 2837'.
- 13. Pull tubing back, wait for cement to set.
- 14. Run in and tag plug, add additional cement if needed.
- 15. Run 6% Bentonite gel
- 16. Run tubing to 50' below the second set of perforations (2096'-2088') and set plug using Class A cement with no more than 3% CaCl2 and no other additives. (2146'-2038')
- 17. Run bond log and shoot casing at free point.
- 18. Cut 4 1/2 casing

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- 19. Place plug through the 4 ½ casing cut (100' minimum) with Class A cement with no more than 3% CaCl2 and no other additives.
- 20. Pull 4 ½" back to 50' below the 8 5/8" casing shoe and place a plug with Class A cement with no more than 3% CaCl2 and no other additives from 1086'-965' covering both elevation and casing shoe.
- 21. Pull 4 ½" back to 100' and set surface plug with Class A cement with no more than 3% CaCl2 and no other additives from 100' to surface.
- 22. Pull tubing out
- 23. Set 3' high x 7" casing with concrete; add API for identification.
- 24. RDMO
- 25. Reclaim location.
- 26. Prepare WR-34 & WR-35 for permit release

Note: Using cut 4 ½ to plug out of hole to keep from the hole collapsing on way out.

27-Mar-97 API # 47- 73-00791 F State of West Virginia Division of Environmental Protection 1:07 (I: 1997 Section of Oil and Gas Permittina Office of Oli & Gas Well Operator's Report of Well Work Farm name: LILLY, DONALD Operator Well No.: J. POWELL #2 Elevation: 1,015.00 Quadrangle: BENS RUN LOCATION: INTON County: PLEASANTS District: 3800 Feet South of 39 Deg. 25Min. 0 Sec. 3200 Feet West of 81 Deg. 2 Min. 30 Sec. Latitude: Longitude Company: ECOLOGICAL ENERGY, INC. P. O. BOX 730 ST. MARYS, WV Casing Used in Left Cement 26170-0000 Fill Up in Well Cu. Ft. Tubing Drilling Agent: BERNARD TICE Inspector: SAM HERSMAN 04/04/97 Permit Issued: Well work Commenced: 06/23/97 Well work Completed: Verbal Plugging 09/15/97 Permission granted on: Rotary Cable
Total Depth (feet)
Fresh water depths (ft) 1036 1036 120 SKS. Salt water depths (ft) 200 SKS. 4 1/2" 29931 Is coal being mined in area (Y/N)? Coal Depths (ft): EXISTING OPEN FLOW DATA Pay zone depth (ft) 2090
MCF/d Oil: Initial open flow Squaw MCF/d Final open flow Bbl/d Time of open flow between initial and final tests Hours Static rock Pressure psig (surface pressure) after Second producing formation Gas: Initial open flow_____ Pay zone depth (ft)
MCF/d Oil: Initial open flow B617d MCF/d Final open flow between initial and final tests Final open flow Bb1/d Time of open flow Hours Static rock Pressure psig (surface pressure) after 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 For: ECOL W

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Consultant

Over

Temporary bridge plug:

Set 4 1/2" solid bridge plug at 2210'.

Perforated Interval:

(2088° - 96°) 12 holes, 0.41°.

Fracturing treatment:

500 gals. 7 1/2% HCL acid, Halliburton Delta frac, 238 BBLS. total fluid, Breakdown press: 4000#, Avg. rate: 12 BPM., Avg. press.: 2300#, 25000 lbs. 20/40 sand, ISIP: 1821.

See original IV-35 State report for additional formation information and flow data.

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IV-35 (Rev 8-81)

Strite of Mest Birginia

Department of Alines noieicia and bau li@

Date	Ap	ril 19,	1982	
Opera	itor'	S		
Well	No.	2		
Parm	Jim	Powell		
API N	ю. <u>П</u>	7 - 073		0791

(Continue on reverse side)

WELL OF ERATOR'S REPORT OF

DRILLING,	FRACTURING	AND/OR	STIMULATING,	OR	PHYSICAL.	CHANCE
			· · · · · · · · · · · · · · · · · · ·			

WEIL TYPE: Oil X / Gas X / Liquid Injection (If "Gas," Production / Undergro	on/Wast	e Disposa pe/ Deep	l/ p/ Sha	110w/)
LOCATION: Elevation: 1015 Watershed	Sugar Cr	eek		
District: Union County P	leasants	Quadrangle	Bens B	tun
TAM Dates Lave On				
COMPANY LAM Petroleum Co.		,		r=
ADDRESS P.O. Box 89, Reno, OH 45773	Casing	Used in	Left	Cement fill up
DESIGNATED AGENT David Clovis	Tubing	Drilling	in Well	
ADDRESS Box 288, Parkersburg, WV 26101	Size			
SURFACE OWNER James Powell	20-16 Cond.			
ADDRESS Harmony Ac., St. Marys, WV	13-10"			
MINERAL RIGHTS OWNER Same as Above	9 5/8			
ADDRESS	8 5/8	1036		120 83
OIL AND GAS INSPECTOR FOR THIS WORK	7	1036		
Phil Tracy ADDRESS Rt #23, Alma, WV	5 1/2	 		
PERMIT ISSUED September 17, 1979		2005		200 0-
DRILLING COMMENCED 9-27-79	4 1/2	2995	2995	200 Sx.
DRILLING COMPLETED 10-7-79	3			
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OUTLIED ON	Liners used			
GEOLOGICAL TARGET FORMATION Devonian Shale		Dept	h 3500	feet
Depth of completed well 3500 feet				
Water strata depth: Freshfeet;	Salt	feet		***************************************
Coal seam depths:	Is ccal	being mine	d in the	area?
OPEN FLOW DATA				
Producing formation Gardon	Pay	zone dept	h 2884 =	2894 feet
Gas: Initial open flow 150 Mcf/d				
Final open flow 80 Mcf/d	Fin	al open fl	OW	Bb1/d
Time of open flow between init.	ial and fi	nal tests	6 hou	ırs
Static rock pressurepsig(surface				
(If applicable due to multiple completion		•		
Second producing formation	Pay	zone depti	h_	feet
cas: Initial open flow Mcf/d	Oil: Ini	il open	flc#	Bbl/d
Final open flow Mof/d	Oil: Fina	al open fla	OW.	Fb1 /d
Time of open flow between initial	ial and fir	al tests	hou	rs
Static rock pressure psig(surface	Deagurener	ntl afror	h	

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FORM IV-35 (REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. Perforated: 12 shots 2887 to 2892

Prac'd: 8-15-80 Broke @ 3L00: Ave. Pressure 2600: Ave. Bate 15 B..P.M.:

Vater 856 Barrels: ISI 1200 (5 Min. 1100): Sand 60,000#:

Nitro 135,000 SCF:::

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Clay Blue Rock Red Bock Lime Sand Hock Slate Lime Slate Lime Slate Lime Slate Bed Rock Slate Lime & Shell Lime Lime Lime Lime Lime Lime Lime Lime	0 13 35 80 90 100 115 125 140 115 167 195 205 210 225 300 490 500 740 880 1010 1065 1110 1125 1135 1130 1125 1133 1355 1380 1415 1475 1512 1512 1689 1738	13 35 80 90 100 115 125 140 145 167 195 205 210 225 300 410 500 740 845 925 1030 1110 1125 1135 1135 1155 1215 1215 1215 1333 1355 1380 1505 1506 1506 1506 1507	

(Attach separate sheets as necessary)

L&M Petroleum Co.

Well Operator

By: Jean Kettering

Date: (

Kettering

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WV Department of Environmental Protection

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic
is tailed yearlogical record of all formations, including



JIM POWELL # 2

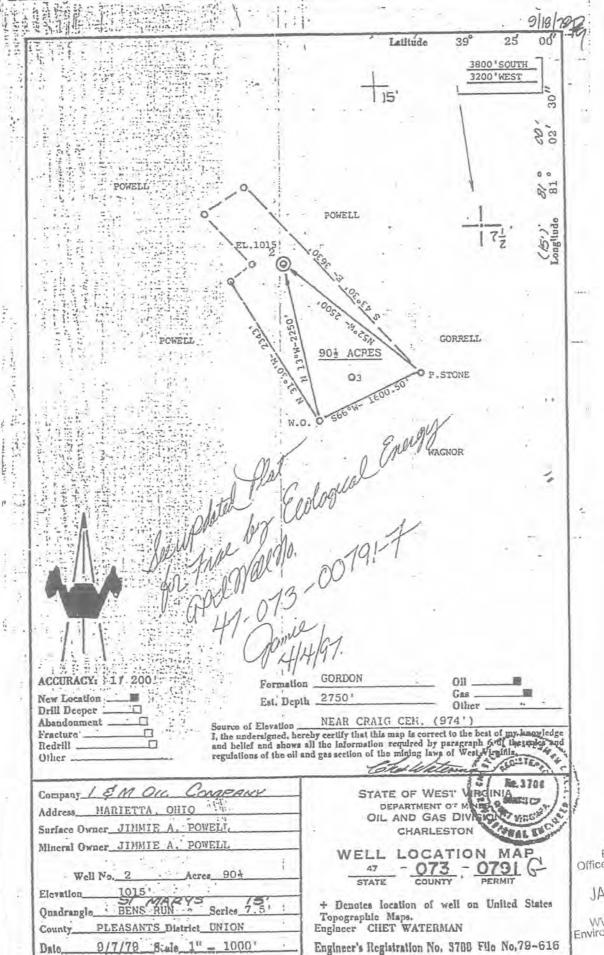
API - 47-073-0791

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Maxon Send	1810	1830	
Big Lime	1855	1900	
B. Injun Sand	1974	2116	
Shale	2118	2140	
Siltstone	2140	2150	
Shale	2150	2160	
Siltstone	2160	2190	
Shale	2190	2206	
Veir Send	2208	2256	
Shale	2258	2300	
Shale	2300	2350	
Siltetone	2390	2400	
Berea Sand	21,08	2420	
Shale	2420	2510	
Siltstone	2510	2530	
Shale	2530	2550	
Siltstone	2550	2590	
Shale	2590	2600	
Siltatone	2600	26h0	
Siltstone	2640	2660	
Shale	2660	2750	
Shale	2750	2790	
Siltatone	2800	2820	
Shale	2820	2850	
Gordon	2884	2894	011/Gas
Shale	2894	3000	+===
Riltstone	3000	3300	
Shale	3300	3500	

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WW-4A Revised 6-07

1) Date: November 12, 2018 2) Operator's Well Number J. Powell #2

3) API Well No.: 47 -

073 00791

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

(a) Name		i) (a) Coal Operator
	James A. Powell	Name
Address	1757 N Pleasants Hwy St. Mary's, WV 26	1707 Address
(b) Name	Jason M. Powell	(b) Coal Owner(s) with Declaration
Address	616 Dewey Ave. St. Mary's, WV 26170	/ Name
	Jefferey W, Powell /	Address
(c) Name	11729 Channingway Blvd. The Plains, OH 45780	Name
Address	Joseph P. Powell	/ Address
5 500 912 9180	1691 N. Pleasents Hwy St. Mary's, WV 26	V 2007
6) Inspector	Cragin Blevins	(c) Coal Lessee with Declaration
Address	1407 19th St.	Name
Audiess	Vienna, WV 26105	Address
Telephone	304-382-5933	Audress
телебионе	304-302-3330	
(2) The	its and the plugging work order; and plat (surveyor's map) showing the well local	tion on Form WW-6.
well (2) The The reason However, Take notic accompany Protection, the Applic	its and the plugging work order; and plat (surveyor's map) showing the well located you received these documents is that you have a you are not required to take any action at all. It is that under Chapter 22-6 of the West Virginia Coping documents for a permit to plug and abandon a with respect to the well at the location described	rights regarding the application which are summarized in the instructions on the reverses side. Indee, the undersigned well operator proposes to file or has filed this Notice and Application and a well with the Chief of the Office of Oil and Span, West Virginia Department of Environmental on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, and or certified mail or delivered by used to the person(s) named above (or by publication in
well (2) The The reason However, Take notic accompany Protection, the Applic	its and the plugging work order; and plat (surveyor's map) showing the well locate you received these documents is that you have rou are not required to take any action at all. It that under Chapter 22-6 of the West Virginia Coring documents for a permit to plug and abandon a with respect to the well at the location described ation, and the plat have been mailed by registere	rights regarding the application which are summarized in the instructions on the reverses side. Once, the undersigned well operator proposes to file or has filed this Notice and Application and a well with the Chief of the Office of Oil and Space. West Virginia Department of Environmental on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, and or certified mail or delivered by fund to the person(s) named above (or by publication in very to the Chief.
well (2) The The reason However, Take notic accompany Protection, the Applic	its and the plugging work order; and plat (surveyor's map) showing the well located by you received these documents is that you have reported to take any action at all. The that under Chapter 22-6 of the West Virginia Coving documents for a permit to plug and abandon a with respect to the well at the location described action, and the plat have been mailed by registere sumstances) on or before the day of mailing or delimitation. Well Operator By: Its:	rights regarding the application which are summarized in the instructions on the reverses side, and, the undersigned well operator proposes to file or has filed this Notice and Application and a well with the Chief of the Office of Oil and year. West Virginia Department of Environmental on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, and or certified mail or delivered by land to the person(s) named above (or by publication in very to the Chief. Designated Agent
well (2) The The reason However, Take notic accompany Protection, the Applic	its and the plugging work order; and plat (surveyor's map) showing the well located by you received these documents is that you have reported to take any action at all. The that under Chapter 22-6 of the West Virginia Coving documents for a permit to plug and abandon a with respect to the well at the location described action, and the plat have been mailed by registere sumstances) on or before the day of mailing or delimitation. Well Operator By: Its:	r Jay-Bee Oll & Gas, Inc. Designated Agent Designated Agent 3570 Shields Hill Rd.

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 Office of Oil and Gas 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

JAN 1 5 2019 information, please contact DEP's Chief Privacy Officer at descriptions are secured.

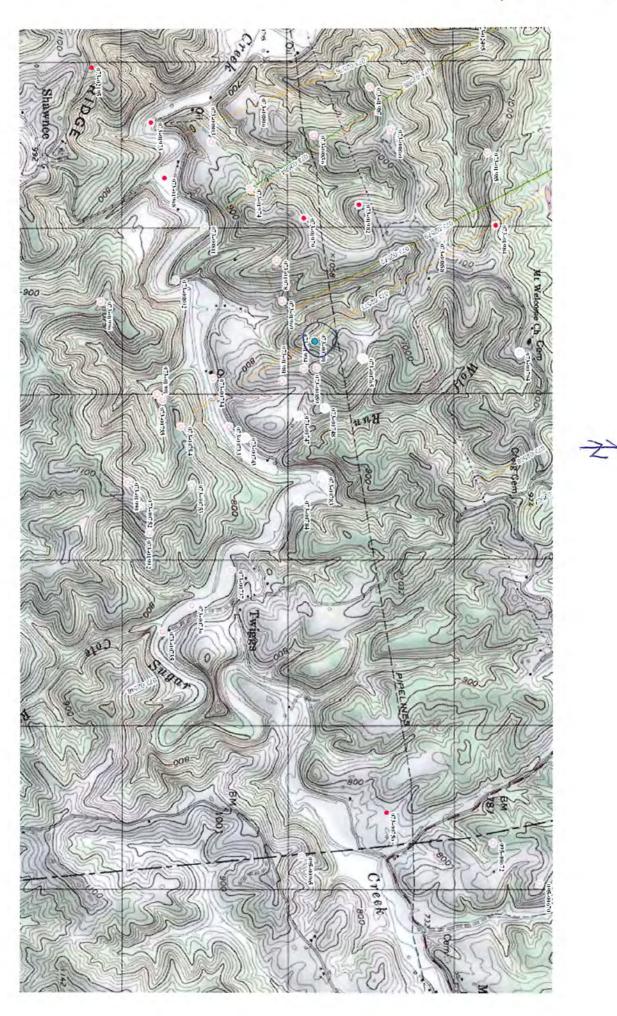
WW-9 (5/16)

API Number 47 -	073	_00791	1
Operator's Well No		Powell	#2

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

FLUIDS/ CUTTINGS	DISPOSAL & RECLAMATION PLAN	
Operator Name Jay-Bee Oil & Gas, Inc.	OP Code 307600	
Watershed (HUC 10) Sugar Creek	Quadrangle Bens Run	
Do you anticipate using more than 5,000 bbls of water to Will a pit be used? Yes No	complete the proposed well work? Yes No _	V
If so, please describe anticipated pit waste:		
Will a synthetic liner be used in the pit? Yes	No If so, what ml.?	OC3
Proposed Disposal Method For Treated Pit Was	tes:	1/3/2019
Underground Injection (UIC Reuse (at API Number Off Site Disposal (Supply for	provide a completed form WW-9-GPP) Permit Number m WW-9 for disposal location) e used for any fluids used in plugging procedures and disposed of p	properly. OFF-SITE.
Will closed loop systembe used? If so, describe: n/a		
Drilling medium anticipated for this well (vertical and ho	orizontal)? Air, freshwater, oil based, etc. n/a	
-If oil based, what type? Synthetic, petroleum, c	erc, n/a	
Additives to be used in drilling medium? n/a		
Drill cuttings disposal method? Leave in pit, landfill, rem	noved offsite, etc. n/a	
-If left in pit and plan to solidify what medium w	vill be used? (cement, lime, sawdust)n/a	
-Landfill or offsite name/permit number? n/a		
Permittee shall provide written notice to the Office of Oil West Virginia solid waste facility. The notice shall be prowhere it was properly disposed.	and Gas of any load of drill cuttings or associated waste revided within 24 hours of rejection and the permittee shall a	jected at any ilso disclose
on April 1, 2016, by the Office of Oil and Gas of the West provisions of the permit are enforceable by law. Violations or regulation can lead to enforcement action. I certify under penalty of law that I have person application form and all attachments thereto and that, base the information, I believe that the information is true, ac submitting false information, including the possibility of fi Company Official Signature Company Official (Typed Name) Randy Broda Company Official Title President (Designated Agent)	1 le	derstand that the er applicable law ubrratted on this ible for o btaining
Subscribed and sworn before me this 12th day of	of December, 20_18 Potrick Moran Notary Public	RECEIVED Office of Oil and Gas
My commission expires CC to ber	25 2023	JAN 1 5 2019
es commission vapues CC101/2		WV Department of Environmental Protection

Form WW-9		Operator's W	ell No. J. Powell #2
Proposed Revegetation Trea	tment: Acres Disturbed 1	Preveg etation p	H 5.5
	Tons/acre or to correct to pl		
Fertilizer type 5-1	0-10		
	:00	lbs/acre	
Mulch_Straw	Tons	s/acre	
	<u>Se</u>	ed Mixtures	
Te	emporary	Perma	nent
Seed Type	lbs/acre	Seed Type Pasture Mix	lbs/acre 200
Attach: Maps(s) of road, location, p provided). If water from the (L, W), and area in acres, of	pit will be land applied, provide v	cation (unless engineered plans incluwater volume, include dimensions (L,	ding this info have been W, D) of the pit, and dimensions
	lved 7.5' topographic sheet.		
Plan Approved by:	Cragin Blevins		
Comments:			
Title: Oil and Gas Ins	spector	Date: 1/3/2019	
Field Reviewed? (X)Yes ()No	RECEIVE Office of Oil a
ricit vestemen: (/ 105		IAN 15



W Department of Environmental Protection

WW-7 8-30-06



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

API: 47-073-00791		WELL N	_{o.:} J. Pow	ell #2	
FARM NAME: Donald	Lilly				
RESPONSIBLE PARTY NAI	_{ME:} <u>Jay-Be</u>	e Oil & (Gas, Inc	r a	
COUNTY: Pleasants		DISTRICT:	Union		
quadrangle: Bens F	Run				
SURFACE OWNER:	Powell, Jason M. Pow	vell, Jeffrey W. Por	well & Joseph P.	Powell	
ROYALTY OWNER: San	16				
UTM GPS NORTHING: 43	61368.2				
UTM GPS EASTING: 495	702.7	GPS ELEV	/ATION: 10	15'	
The Responsible Party named all preparing a new well location plabove well. The Office of Oil and the following requirements: 1. Datum: NAD 1983, 2 height above mean set 2. Accuracy to Datum - 3. Data Collection Methods Survey grade GPS: Pos	at for a plugging p ad Gas will not acc Zone: 17 North, Co a level (MSL) – m - 3.05 meters aod:	ermit or assignept GPS coord pordinate Units neters.	ned API number inates that do	er on the not meet	
Rea	al-Time Differentia	al			
Mapping Grade GPS X:	Post Processed Dif	ferential			
<i>,</i>	Real-Time Differe				
4. Letter size copy of the undersigned, hereby certify relief and shows all the informativescribed by the Office of Oil and	this data is correct ion required by lay ad Gas.	to the best of wand the regu	my knowledge lations issued a	e and and	
ignature	 Yes	sident Itle		12-2018 ate	RECEIVED Office of Oil and Gas
Nº				C	JAN 1 5 2019