

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

Wednesday, October 16, 2019 WELL WORK PLUGGING PERMIT Vertical Plugging

BRC OPERATING COMPANY, LLC 200 CRESCENT COURT, SUITE 1900

DALLAS, TX 75201

Re:

Permit approval for CAMPBELL 1

47-067-00876-00-00

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: CAMPBELL 1

Farm Name: GEORGE, OKEY LEE

U.S. WELL NUMBER: 47-067-00876-00-00

Vertical Plugging

Date Issued: 10/16/2019

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-4BRev. 2/01

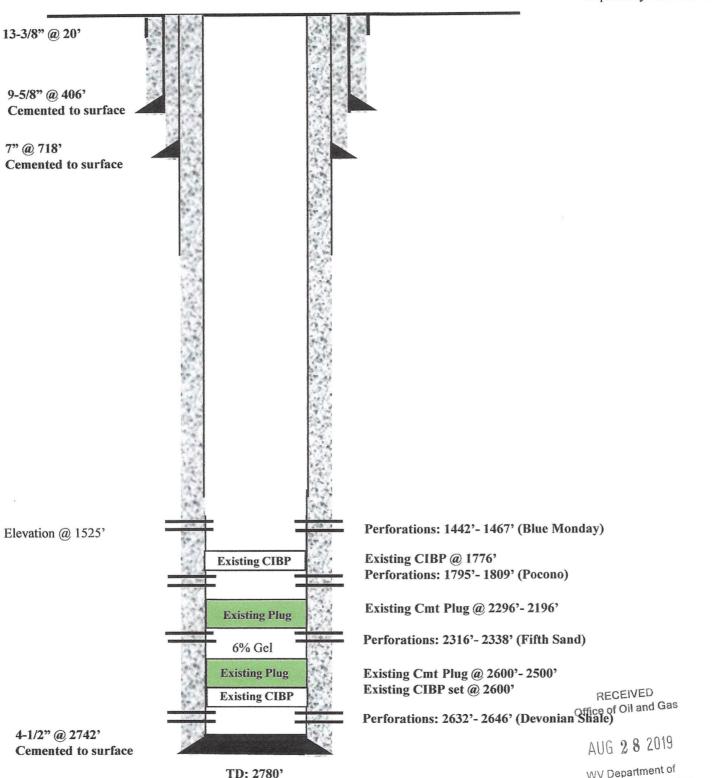
 Date August 5 		20 19
2) Operator's		
Well No. Campb	ell #1	
3) API Well No.	47 - 067	- 00876

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

	APPLICATION FOR A PERM	IIT TO PLUG AND AE	ANDON
4)	Well Type: Oil/ Gas X/ Liquid	d injection/	Waste disposal/
	(If "Gas, Production or Und		
		Cobb D	up of Anthony Crook
5)	Location: Elevation 1,525'		un of Anthony Creek
	District Hamilton	County Nicholas	_ Quadrangle Tioga 7.5'
6)	Well Operator BRC Operating Company, LLC	7)Designated Age	nt Charles Brightman
0 /	Address 200 Crescent Court, Suite 1900		286 Sunday Rd
	Dallas, TX 75201		Hico, WV 25854
8)	Oil and Gas Inspector to be notified	9)Plugging Contr	actor
	Name Jeremy James	Name Hallib	urton
	Address P.O. Box 36	Address_49	999 East Pointe Dr.
	Clendenin, WV 25045	Za	anesville, OH 43701
			RECEIVED Office of Oil and Gas
			AUG 2 8 2019
			WW Department of Environmental Protection
	fication must be given to the district of can commence.	ll and gas inspect	
Work	order approved by inspector	2	Date

BRC Operating Company, LLC Campbell #1 API No. 47-067-00876 Present Wellbore Schematic

Prepared by: Tim McGilvray



TD: 2780' PBTD: 1776'

Tubular Data and Hole Capacities

	Dimens	ions, Streng	ths, and	Depths	1000					
Casing	Grade	Weight	Conn.	ID	Drift	Collaps	e	Burst	Jt.	Depth
Liner		lb/ft		in.	in.	psi		psi	Strength	feet
Tubing									(K#)	
13-3/8"										20'
9-5/8"										406'
7"										718′
4-1/2"	J-55	No report		4.090	3.965	3,310		4,380	101,000	2,742'
2-3/8"		4.7#	EUE	1.995	1.901	9980		9840	60,300	Workstring
	Capaciti	es	bbls/	ft.	1+44		С	u.ft./ft.		为主义。
2-3/8" w	orkstring		0.00387	bbls/ft			0.0	2171 cu.f	t./ft.	
4-1/2" ca	asing		0.01625	bbls/ft			0.0	912 cu.ft.	/ft.	
2-3/8"x 4	1-1/2" ann	ulus	0.0101	bbls/ft			0.0	565 cu. ft	/ft.	
Well cap	acity to plu	ıg depth								
~25 bbls										

Plug Data

Plug	Sacks	Mix Water BBLS	Plug Depth	Displ BBLS 2-3/8" Tbg	Tag
#1	40	~5.0	~1776'- 1259'	~4.5	
#2	65	~8.0	~770'- surface Circ hole clean at 10' to accommodate well monument		

^{*}Cement to be Class "A" and Mixed to 15.6#, 5.2 gal/sk

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^{* 6%} Gel water to be positioned between plugs

BRC Operating Company, LLC

Campbell Well No. 1 API No. 47-067-00876 Nicholas County, WV

Plug and Abandonment Procedure

TD: 2,780'

PBTD: 1,776'

Conductor Casing: 13-3/8" @ 20'

Surface Casing: 9-5/8" @ 406'. Cmt'd to surface

Intermediate Casing: 7" @ 718'. Cmt'd to surface

Production Casing: 4-1/2" set @ 2,742'. Cmt'd to surface

Tubing: Undetermined. Records unavailable

Packer: Undetermined

Perforations: 1442'- 1467'

Elevation: 1,525'

Location: Lat: 38.466288° Long: -80.727697°

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Procedure

- 1. MIRU. Conduct pre-job safety meeting and discuss JSA with everyone on location. JSA should cover: heavy lifts, pinch points, location hazards, pressure hazards, and proper PPE. Make sure everyone knows they have the right to stop the job. Notify DEP (304-951-2596) 24 hours prior to plugging operations.
- 2. Check tubing and casing strings for pressure and record. Test lines to 250 psi low and HASP (Highest Anticipated Surface Pressure plus 250 psi). Prior to the start of any pumping operation, P&A supervisor and pump operator shall verify that the valves and lines involved in the operation, are aligned properly, and are rated to the maximum pressure to be applied.
- 3. Bleed off any existing pressure. Fill tubing & casing as needed. NU BOPs. Function test same.
- 4. POOH with any exiting tubing.
- 5. RIH with 2-3/8" to \sim 1776' and circulate well with FW. Prepare to cement.
- 6. Mix/Pump 40 sx (~8.4- bbl. slurry) Class "A", 15.6# Cement. Displace plug with ~4.5 bbls to position 517' cement plug @ 1776'- 1259'.

Note: 6% gel water to be positioned between all plugs.

- 7. LD tubing to 770'. Prepare to cement.
- 8. Mix/Pump 65 sx (13.7- bbl. slurry) Class "A", 15.6# Cement from 770'- surface. POOH, ND, and top out as needed leaving top of cement at 10' to accommodate well monument.
- 9. RDMO.

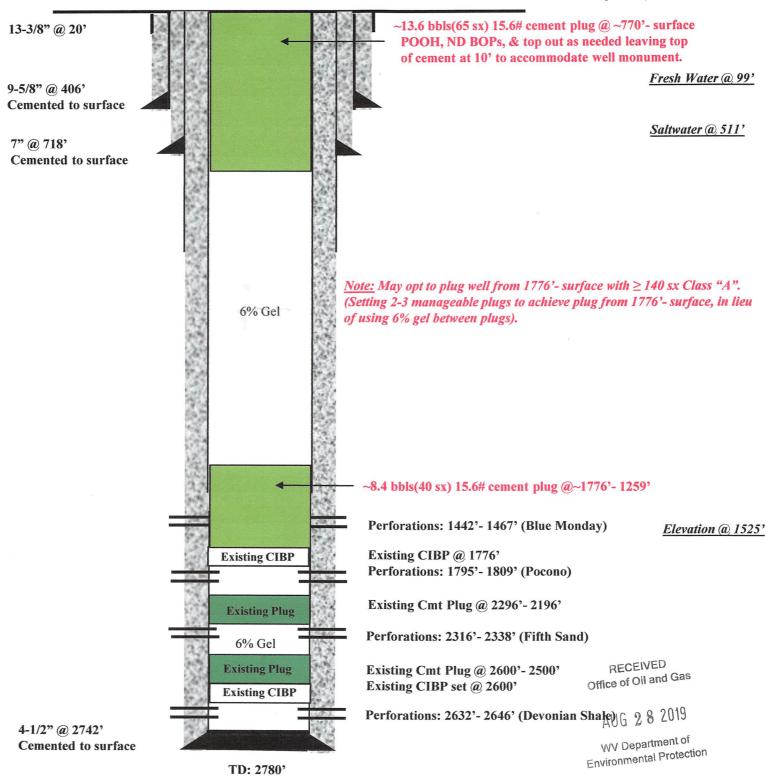
Prepared by: Tim McGilvray Date: 10-12-2019

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BRC Operating Company, LLC Campbell #1 API No. 47-067-00876 Proposed Wellbore Schematic

Prepared by: Tim McGilvray



PBTD: 1776'

WR-35						Date		th 16, 2006	
			State of West ion of Environm Section of Oil Operator's Rep	ental Protection		API#	47- 067	- 00876	
Farm Name:		eorge, Okey L		Operator Well		Campl	noff #1		l
LOCATION:	Elevation: District: Latitude: Longitude:	1525 Ham 12320'	j'	Quadrangle: County: 38° DEG. 80° DEG.	30' 42'	Tioga Nichol MIN. MIN.	a		
Company:	Cabot Oil & Ga	as Corporation		Casing & Tubing Size	Used in D		Left in Well	Cement Fill Up Cu. Ft.	
	Charleston, W		iU	9-5/8"	406		406'	192	
Agent: Inspector:		Thomas S. Richard S.		7"	718		718'	192	
Permit Issued Well Work Co Well Work Co	mmenced:	8/10/ October 2 February	9, 2005	4-1/2"			2742'	263	
Verbal Pluggir Permission gr	ng: anted on:	residery	10, 2000			_			
Rotary X Total Depth (for Fresh Water D	eet) Depths (ft)	2780'/ PB'							
Sait Water De Is coal being n	pths (ft) nined in area (Y ft) NONE REP	/N) ? NO		F	LUG BAC	К ЅНО	WN ON BACK	(
OPEN FLOW		ONIED							
Producing Fo	rmation	BLUE MO	NDAY	Pay Zo Depth (14	42'-1467'		
Gas: Initial Op Final Op Time of ope Static rock pres	en Flow 30		MCF/d ED) MCF/d tests g surface pressi	Fir 4			0	Bbl/d Bbl/d	
Second Produ	cing Formatio	n		Pay Zo Depth (
Gas: Initial Op Final Ope Time of ope Static rock pres	n Flow In flow between	initial and final	MCF/d MCF/d tests surface pressu	Fin					ECEIVED of Oil and Gas
		A PUT THE FOL	LOWING: 1.) DE THE WELL LOG Y DUNTERED BY T	TAILS OF PER	FORATED I	INTERV	ALS, FRACTUR D GEOLOGICAL	RECORD Mry (epartment of
ſ	RECEIVED	Gas	By: رُنِ Date: رُنِ	5/24/6	6	<u> </u>	Drilling Sup		nental Plotection
l _E	MAY 2 6 201 WV Department	of		•					780

STAGE	PERFS	ACID 15% HCI	FÖAM	SAND (lbs)	NITROGEN (scf)	BDP	ATP	MTP	ISIP
1-Devonian Shale	2632-2646 (20)	250	75Q	41,300	375,800	2017	1907	2017	1633
2-Fifth Sand	2316-2338 (16)	250	75Q	24,100	218,000	1941	1788	1914	1651
3-Pocono	1795-1809 (28)	250	75Q	40,600	245,500	1600	1513	1600	1418
4-Blue Monday	1442-1467 (50)	500	75Q	46,400	281,000	1211	1663	1963	1854

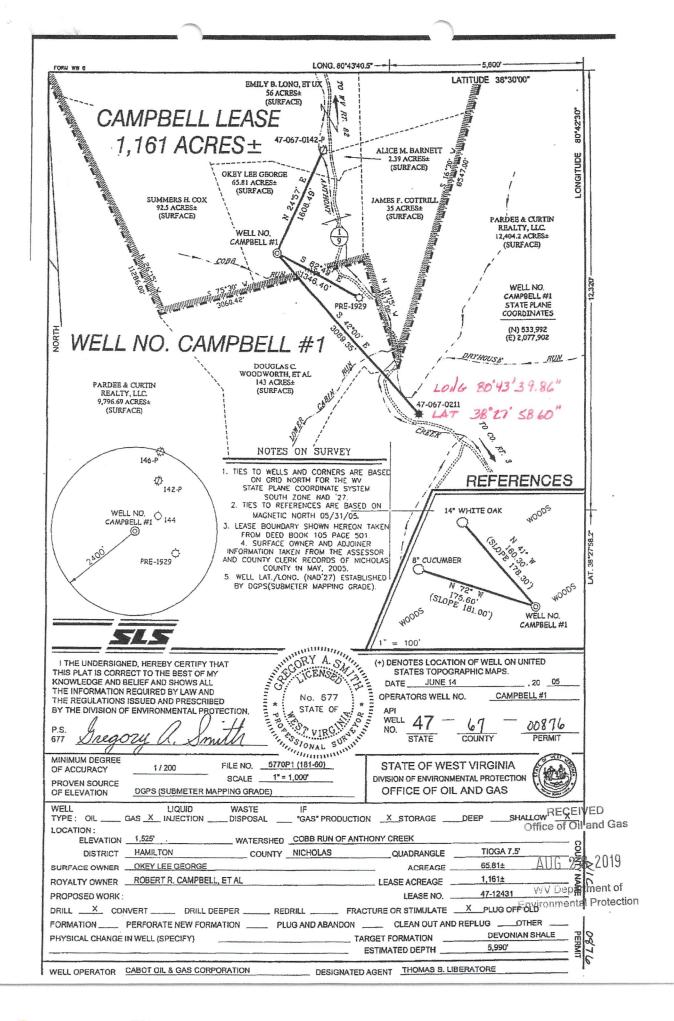
FORMATION	TOP	BOTTOM	REMARKS
Siltstone	Surface	172	
Shale and Siltstone	172	300	
Sandstone and Shale	300	445	
Shale and Siltstone	445	755	
Sandstone	755	783	
Shale and Sandstone	783	947	
Shale	947	1115	
Maxton Sandstone	1115	1154	
Shale	1154	1293	
Siltstone	1293	1318	
Shale	1318	1355	
Little Lime	1355	1398	
Shale	1398	1424	
Blue Monday	1424	1468	
Big Lime	1468	1730	
Shale	1730	1751	
Pocono	1751	1814	
Shale	1814	2060	
Berea	2060	2062	
Shale	2062	2188	
Sandstone	2188	2195	
Shale	2195	2313	
Sandstone	2313	2338	
Shale	2338	2380	
Shale and Siltstone /	2380	2696	
Siftstone and Shale	2696	2780	TD

PLUGGED BACK AS FOLLOWS: 2600' CIBP

2600'-2500' Class "A" cmt 2500'-2296' 6% Gel 2296'-2196' Class "A" cmt 2196'-1776' Brine 1776 CIBP

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AUG 28 2019



WW-4A Revised 6-07

1) Date:	August 5, 2019			_	
2) Operator's	Well Number				
Campbell #1		0000			
3) API Well N	o.: 47 -	067	_	00876	

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Own (a) Name	ner(s) to be served: George Okey Lee & AE		a) Coal Operator Name		
Address	30999 Ridgeway Dr		Address		
	Walker, LA 70785		_		
(b) Name			(b) Coal Ow	ner(s) with Declaration	
Address			Name	Tioga Minerals LLC	
11441000			- Address	135 Corporate Center Dr, Suite	510
				Scott Depot, WV 25560	
(c) Name			Name		
Address			Address	A	
Huulebb			_		
6) Inspector	Jeremy James		_ (c) Coal Les	see with Declaration	
Address	P.O Box 36		Name		
	Clendenin, WV 25045		Address		
Telephone	304-951-2596		_		
•			_		
(2) The p The reason However, ye Take notice accompanyi Protection, the Applica	that under Chapter 22-6 of ing documents for a permit with respect to the well at t	owing the well location on the six states you have right action at all. The West Virginia Code to plug and abandon a value location described on mailed by registered	hts regarding the applic e, the undersigned well well with the Chief of the in the attached Application or certified mail or del	operator proposes to file or has file e Office of Oil and Gas, West Virg on and depicted on the attached Fo	ed this Notice and Application and ginia Department of Environmental orm WW-6. Copies of this Notice, named above (or by publication in
NOTARY PU	BLIC OFFICIAL SEAL na L. Pugh	Well Operator	BRC Operating Compa	any, LLC	
State o	f West Virginia	By:	Charles Brightman	Mob 30	
My Com	mission Expires lary 25, 2024	Its:	Agent		
740 CHE	STNUTKNOB RD.	Address	286 Sunday Rd.		RECEIVED
	O BOX 16 ND, WV 25864		Hico, WV 25854		Office of Oil and Gas
LATE	IND, WY 2000-	Telephone	304-880-8121		
			Λ		AUG 2 8 2019
Subscribed and My Commission	sworn before the th	is 108 da	ay of U	Notary Public	WV Department of Environmental Protection
,	Thirty day	way o	0 4001		
Oil and Cas Priva	ov 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

WW-9 (5/16)

API Number	47 -	067	_ 00876	
Operator's W	ell No	. Ca	mpbell #1	

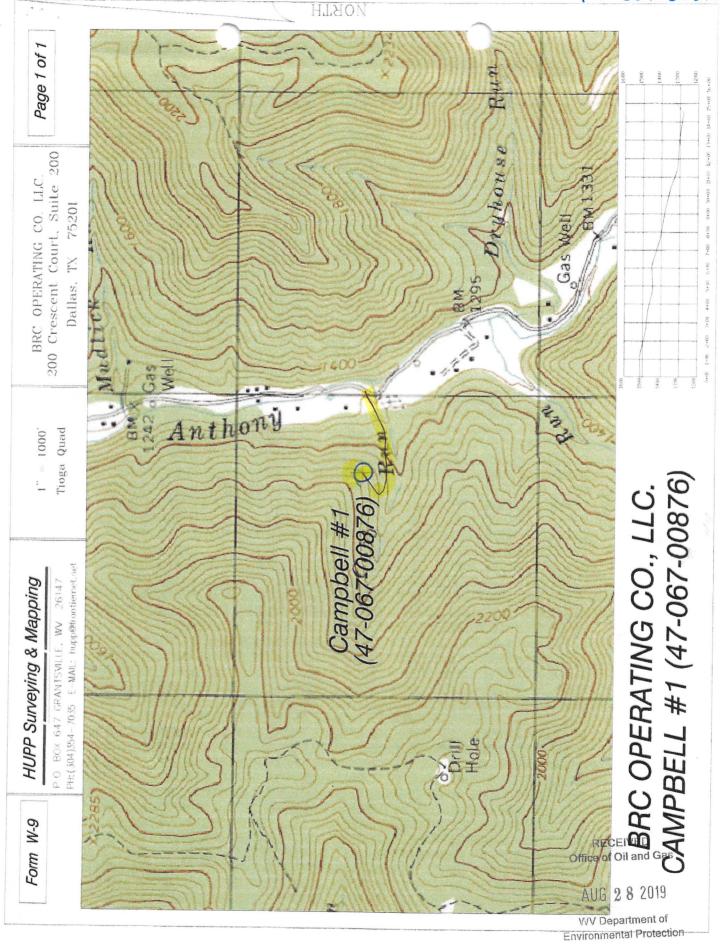
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name BRC Operating Company, LLC OP Code	_
Watershed (HUC 10) Cobb Run of Anthony Creek Quadrangle Tioga 7.5'	_
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 V	
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes No If so, what ml.?	
Proposed Disposal Method For Treated Pit Wastes:	TANKS
Land Application (if selected provide a completed form WW-9-GPP)	SITE .
Underground Injection (UIC Permit Number) 7
Reuse (at API Number Off Site Disposal (Supply form WW-9 for disposal location))
Off Site Disposal (Supply form w w - 9 for disposal location) Other (Explain	_
Will closed loop systembe used? If so, describe: n/a	_
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. n/a	
-If oil based, what type? Synthetic, petroleum, etc. n/a	
Additives to be used in drilling medium?n/a	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etcn/a	_
-If left in pit and plan to solidify what medium will 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 and Cas of any load of drill cuttings or associated waste rejected at a West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also discless where it was properly disposed.	
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT on April 1, 2016, by the Office of Oil and Cas of the West Virginia Department of Environmental Protection. I understand provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other application regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted 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 penal submitting false information, including the possibility of fine or imprisonment. RECEIVED Office of Oil and G	that the able law on this otaining lities for
Company Official (Typed Name) Charles Brightman	
Company Official Title Designated Agent	9
WV Department of Environmental Protection	
Subscribed and swom before me this day of ugust, 20 9 Notary Public Office Glenna L. P. State of West Vindy Commission I. January 25, 20 My commission expires 25, 2024 740 CHESTNUT KN POBOX 16	ICIAL SEAL ugh irginia Expires 024 NOB RD.
LAYLAND, WV 2	5864

47-067-00876P

Propos	ed Revegetation Treatment: Acres	Disturbed .5		Preveg etation pH	
	Lime 5 gals Tons/ac	cre or to correct to pH	6.5		
	Fertilizer type				
	Fertilizer amount 500	11	bs/acre		
	Mulch_500lbs	Tons	/acre		
		See	d Mixtures		
	Temporary			Permane	nt
n/a	Seed Type lbs/ac	re	-	Seed Type cue blend	lbs/acre 250
Maps(s	o) of road, location, pit and propose	ed area for land applic	cation (unless eng	ineered plans including	g this info have been
Maps(s provide (L, W),		nd applied, provide wication area.	cation (unless eng	ineered plans includin ude dimensions (L, W	g this info have been , D) of the pit, and dimens
provide (L, W), Photoc	s) of road, location, pit and proposed). If water from the pit will be land and area in acres, of the land appliance.	nd applied, provide wication area.	rater volume, incl	ineered plans includin ude dimensions (L, W	ng this info have been (, D) of the pit, and dimens
Maps(sprovide) (L, W), Photoc Plan A	s) of road, location, pit and proposed. If water from the pit will be land and area in acres, of the land application of involved 7.5' topographic proved by:	nd applied, provide wication area.	rater volume, incl	ude dimensions (L, W	g this info have been (, D) of the pit, and dimens
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WW-7 8-30-06



West Virginia Department of Environmental Protection Office of Oil and Gas

WELL I	LUCATION FURM: GPS		
_{API:} 47-067-00876	WELL NO.: Ca	ampbell #	1
FARM NAME:			
RESPONSIBLE PARTY NAM	ME: BRC Operating Com	pany, LLC	<u> </u>
COUNTY: Nicholas	DISTRICT: Ham	nilton	
QUADRANGLE: Tioga 7			_
SURFACE OWNER: Geor	ge Okey Lee & AE JA		
ROYALTY OWNER: Robe	ert Campbell & Mary Ca	mpbell	
UTM GPS NORTHING: 425			_
UTM GPS EASTING: 5237	GPS ELEVATION	_{N:} 1525	_
preparing a new well location plant above 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.		I number on the that do not mee	
Rea	al-Time Differential		
	Post Processed Differential		
	Real-Time Differential		
I the undersigned, hereby certify	he topography map showing the well this data is correct to the best of my known tion required by law and the regulations and Gas.	nowledge and	RECEIVED Office of Oil and Gas SEP 0 9 2019
Fred Softman	DESIGNATED ALBUT	9/5/19	•
Signature	Title	Date	—WV Department of Environmental Protection