



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

Friday, November 2, 2018
WELL WORK PLUGGING PERMIT
Vertical Plugging

ROSS AND WHARTON GAS COMPANY, INC.
RT. 5, BOX 29

BUCKHANNON, WV 262010000

Re: Permit approval for 1-S-90
47-015-01780-00-00

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

A handwritten signature in blue ink, appearing to read "James A. Martin", is positioned to the right of the printed name and title.

Operator's Well Number: 1-S-90
Farm Name: BALL-HARDMAN
U.S. WELL NUMBER: 47-015-01780-00-00
Vertical Plugging
Date Issued: 11/2/2018

Promoting a healthy environment.

I

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 August 29, 2018
2) Operator's
Well No. Hardman #1
3) API Well No. 47-015 - 1780

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 1108' Watershed Dawson Fork
District Otter County Clay Quadrangle _____

6) Well Operator Ross & Wharton Gas Co. Inc. 7) Designated Agent Mike Ross
Address 354 Morton Ave. Address P.O. Box 219
Buckhannon, WV 26201 Coalton, WV 26257

8) Oil and Gas Inspector to be notified Name Jeremy James
Address P.O. Box 36
Clendenin, WV 25045
9) Plugging Contractor Name N/A
Address _____

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

Free point and recover casing's & tubular's

6% Gel between plug's

Set cement plug 1900' to TD (2211') Plug 100' above top perf.

Set 100' cement plug across casing cut

Set cement plug 1050' to 1150' elevation plug

Set cement plug 600' to 700' (salt bearing strata plug)

Set cement plug 270' to surface, (8" casing plug, freshwater protection plug

and surface plug) Tag plug's as necessary, Set monument with API number

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

Work order approved by inspector



Date

10-3-18

OG-10
Rev. - 9-71



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Quadrangle Chloe
Permit No. 47-015-1780

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company <u>Stonestreet Lands Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 350, Spencer, WV</u>	Size			
Farm <u>Ball Hardman</u> Acre <u>247</u>	20-16			
Location (waters) <u>Dawson Fork</u>	Cond.			
Well No. <u>1-S-90</u> Elev. <u>1108</u>	13-10"			
District <u>Otter</u> County <u>Clay</u>	9 5/8			
The surface of tract is owned in fee by _____	8 5/8	220	220	70 sks.
<u>V. Boggs</u>	7			
Address _____	5 1/2			
Mineral rights are owned by <u>G. W. Ball, etal</u>	4 1/2		2211	75 sks. RFC
Address _____	3			
Drilling Commenced <u>5-10-80</u>	2			
Drilling Completed <u>5-21-80</u>	Liners Used			
Initial open flow <u>No Test</u> cu. ft. <u>0</u> bbls.				
Final production <u>865,000</u> cu. ft. per day <u>0</u> bbls.				
Well open <u>7</u> hrs. before test <u>520</u> RP.				

Well treatment details:
500 bbls. water, 1,000 gal. 15% HCl
15,000 lbs. 20/40 sand, 15,000 lbs. 80/100 sand
300 lbs. gelling agent, 25 gal. Non Emul Agent
10 gal. Surfactant

Attach copy of cementing record.

Coal was encountered at None Feet _____ Inches _____
 Fresh water 66 Feet _____ Salt Water _____ Feet _____
 Producing Sand Blue Monday - Big Injun Depth 2010-2049
2170-2172

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Not Recorded			0	1200		0 to 1200 not recorded continued on the back
Shale			1200	1256		
Salt Sand			1256	1273		
Shale & Slate			1273	1332		
Salt Sand			1332	1375		
Shale			1375	1383		
Salt Sand			1383	1404		
Shale & Sand			1404	1483		
Salt Sand			1483	1497		
Shale			1497	1544		
Salt Sand			1544	1564		
Shale			1564	1603		
Salt Sand			1603	1661		
Shale			1661	1692		
Salt Sand			1692	1725		
Shale			1725	1742		
Salt Sand			1742	1785		
Shale			1785	1794		
Salt Sand			1794	1894		
Shale			1894	1954		
Maxton			1954	1974		
Little Lime			1974	2010		
Blue Monday			2010	2054		

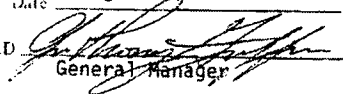
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* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Big Lime			2054	2140		
Big Injun			2140	2247		
Shale			2247	2258	TD	
Clay			0	20		
Sand & Shale			20	70		
Red Rock			70	110		
Sand & Shale			110	140		
Red Rock			140	175		
Sand & Shale			175	190		
Red Rock			190	230		
Sand & Shale			230	275		
Red Rock			275	315		
Sand & Shale			315	345		
Red Rock			345	380		
Sand & Shale			380	410		
Red Rock			410	460		
Sand & Shale			460	495		
Red Rock			495	520		
Sand & Shale			520	580		
Red Rock			580	630		
Sand & Shale			630	670		
Shale			670	715		
Sand & Shale			715	750		
Shale			750	780		
Sand & Shale			780	825		
Shale			825	870		
Sand & Shale			870	920		
Shale			920	940		
Sand & Shale			940	960		
Shale			960	975		
Sand & Shale			975	1000		
Shale			1000	1050		
Sand & Shale			1050	1100		
Shale			1100	1150		
Sand			1150	1200		

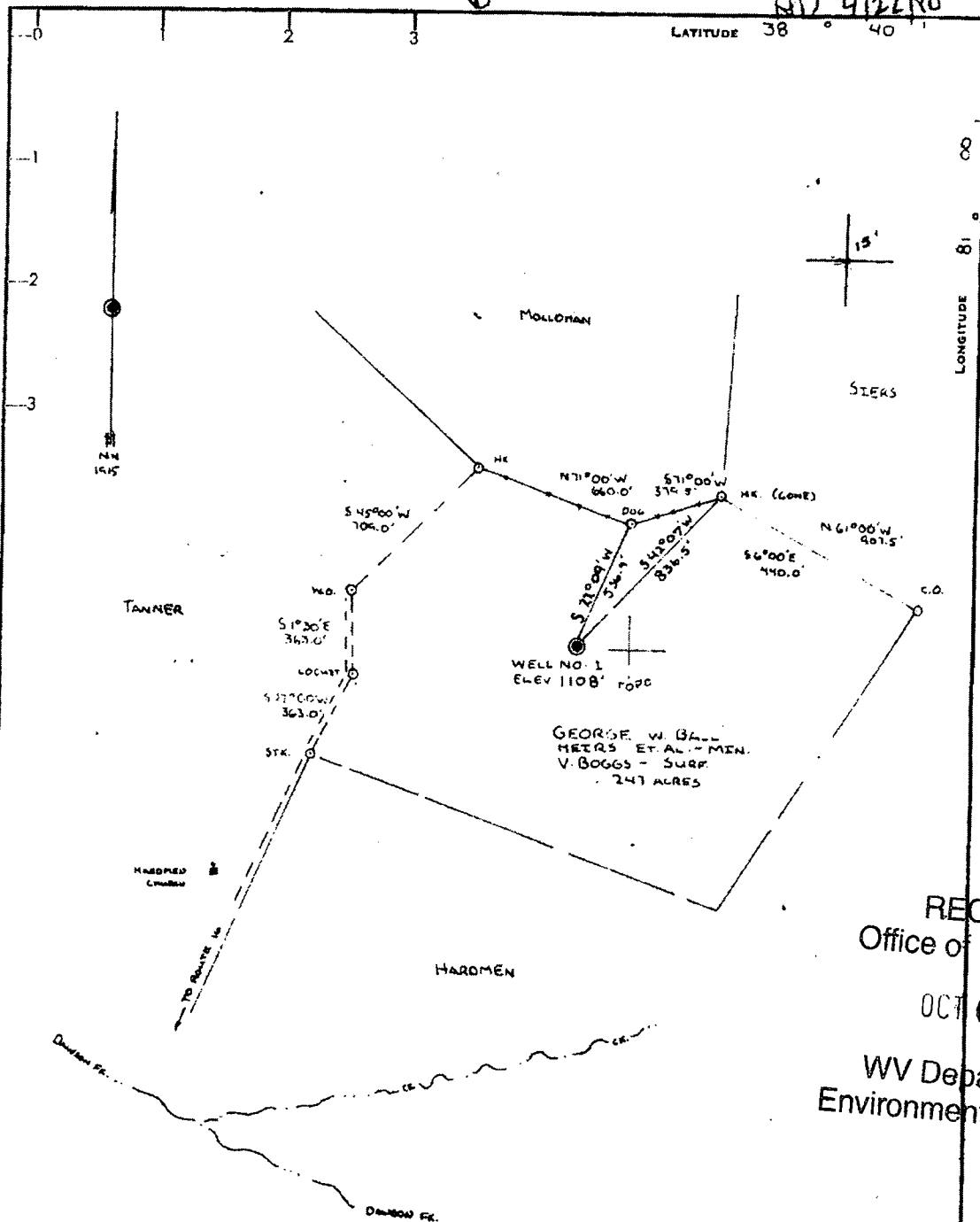
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Date August 4, 19 80

APPROVED  General Manager &XXXX

6

(11) 4/22/80



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- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

CERTIFICATE

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mines laws of West Virginia."
Minimum degree of accuracy is one part in 700

Signed E. J. Schuck, P.E., A.S.P.C.

COMPANY STONEBREEK LANDS CO.
 ADDRESS SPENCER WVA
 FARM G.W. BALL 257AC - MEIN V. BOGGS - SURE
 MAP _____ ACRES 247A LEASE NO. _____
 WELL (FARM) NO. ONE SERIAL NO. 90
 ELEVATION (SPIRIT LEVEL) _____ 1108'
 QUADRANGLE CHLOE 7.5 MINUTE OTTER 15'
 COUNTY CLAY DISTRICT OTTER
 POINT OF PROVEN ELEVATION NIGHT ELEV. 800'
 FILE NO. HARDMEN-61 DRAWING NO. _____
 DATE 7/15/80 SCALE 1"=500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. **015-1780**

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 25,000 LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

2160 BIG INJUN

47-015-01780P

WW-4A
Revised 6-07

1) Date: August 29, 2018

2) Operator's Well Number _____

3) API Well No.: 47 - 015 - 1780

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>Vernon G. Boggs and G.V. Boggs, Jr.</u>	Name <u>N/A</u>
Address <u>146 E. Main Street</u>	Address _____
<u>Luray, VA 22835</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Jeremy James</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 36</u>	Name <u>N/A</u>
<u>Clendenin, WV 25045</u>	Address _____
Telephone <u>1-304-951-2596</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 reverse 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 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.

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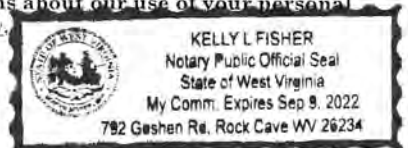
Well Operator Ross & Wharton Gas Co. Inc.
 By: [Signature]
 Its: President
 Address 354 Morton Ave.
Buckhannon, WV 26201
 Telephone 1-304-472-4289

Subscribed and sworn before me this 20th day of September, 2018
Kelly L Fisher Notary Public

My Commission Expires September 9, 2022

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.



47-015-01780A

WW-9
(5/16)

API Number 47 - 015 - 1780
Operator's Well No. _____

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

Operator Name Ross & Wharton Gas Co. Inc. OP Code 306580

Watershed (HUC 10) _____ Quadrangle _____

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: _____

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 _____)

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? _____

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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.

WV Department of Environmental Protection

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 Mike Ross

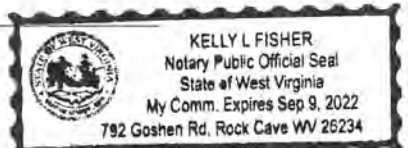
Company Official (Typed Name) Mike Ross

Company Official Title President

Subscribed and sworn before me this 20TH day of September, 2018

Kelly L. Fisher Notary Public

My commission expires September 9, 2022



Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type ¹⁰⁻²⁰⁻²⁰ _____

Fertilizer amount 500 lbs/acre

Mulch Hay Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Contractor's Mix		Contractor's Mix	
Fescue	30	Fescue	30


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.

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Plan Approved by: Jeremy James 

Comments: _____

WV Department of
Environmental Protection

Title: inspector OOG

Date: 10-3-18

Field Reviewed? () Yes () No

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

Operator Name: Ross & Wharton Gas Co. Inc.
Watershed (HUC 10): Dawson Fork Quad: Chloe
Farm Name: _____

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

N/A

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

N/A

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3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Dawson Fork

WV Department of
Environmental Protection

4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No material will be used

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

N/A

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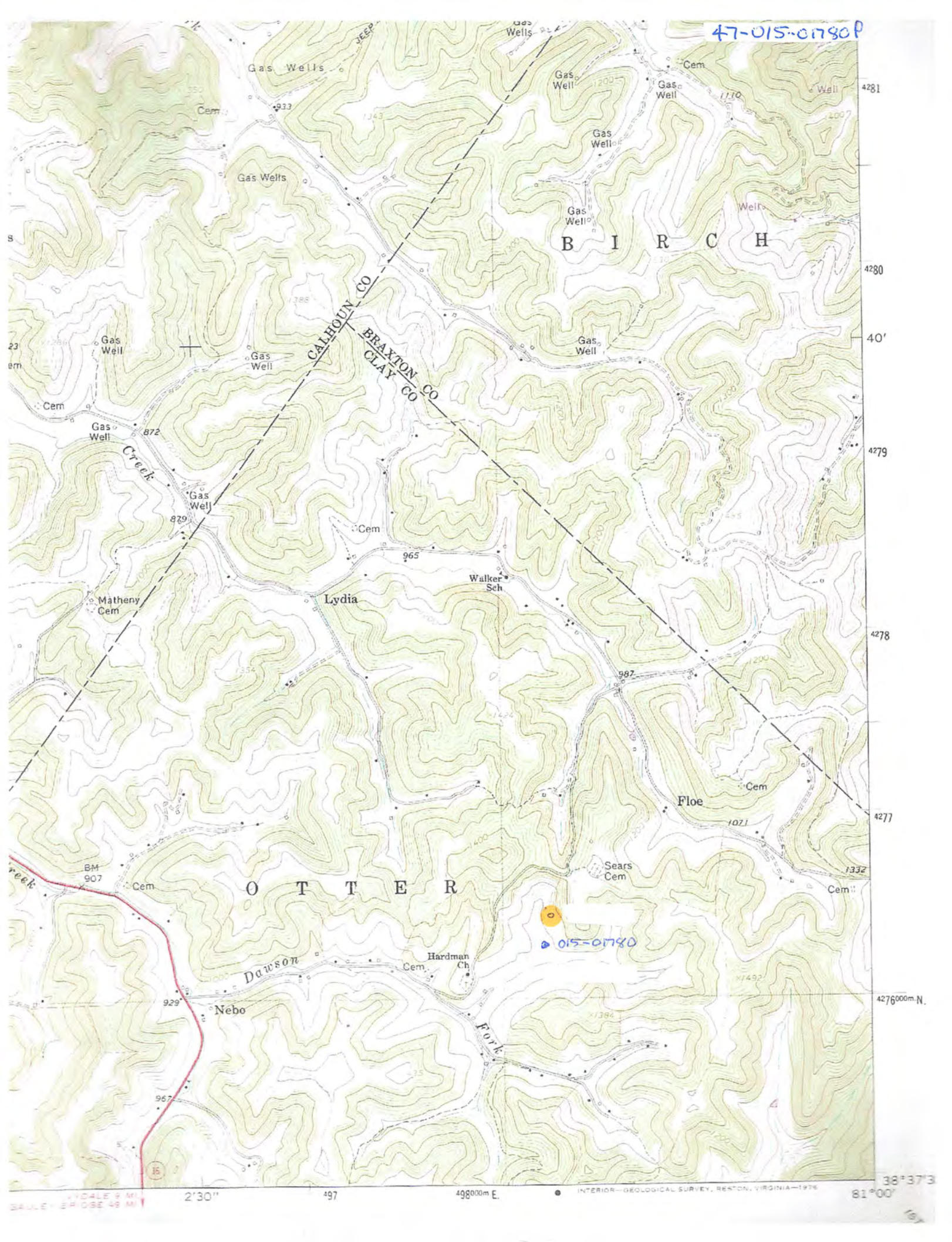
8. Provide provisions and frequency for inspections of all GPP elements and equipment.

N/A

Signature: Trinke Ross

Date: September 20, 2018

47-015-01780P



CALHOUN CO
BRAXTON CO
CLAY CO

B I R C H

O T T E R

015-01780

47-015-01780 P

WW-7
8-30-06



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

API: 47-015-01780 WELL NO.: _____

FARM NAME: Hardman

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Clay DISTRICT: Otter

QUADRANGLE: Chloe

SURFACE OWNER: Vernon G. Boggs & G.V. Boggs, Jr.

ROYALTY OWNER: Mike Ross

UTM GPS NORTHING: 4276457.2

UTM GPS EASTING: 498274.3 GPS ELEVATION: 1108' RECEIVED
Office of Oil and Gas

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: OCT 03 2018
WV Department of
Environmental Protection

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.

Mike Ross
Signature

President
Title

9-20-18
Date