



west virginia department of environmental protection

Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, May 13, 2020  
WELL WORK PLUGGING PERMIT  
Vertical Plugging

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

BUCKHANNON, WV 262010000

Re: Permit approval for EFFIE JARVIS 1  
47-013-03295-00-00

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: EFFIE JARVIS 1  
Farm Name: JARVIS, EFFIE  
U.S. WELL NUMBER: 47-013-03295-00-00  
Vertical Plugging  
Date Issued: 5/12/2020

Promoting a healthy environment.

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## 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

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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 February 18, 2020  
2) Operator's  
Well No. Effie Jarvis #1  
3) API Well NO. 47-013 - 03295 P

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 923' Watershed Stinson Creek  
District Washington County Calhoun Quadrangle Chloe

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 \_\_\_\_\_


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

- Free point and recover casing's & tubular's**
- 6% Gel between plug's**
- Set cement plug 1650' to TD (2114') Blue Monday, Big Injun, Plug 100' above top perf**
- Set 100' cement plug across casing cut**
- Set cement plug 900' to 1000' elevation plug**
- Set cement plug 250' to surface, (8" casing plug, freshwater protection plug and surface plug) Tag plug's as necessary, Set monument with API number**

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

Work order approved by inspector  Date 3-17-2020



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Chloe  
Permit No. 47-013-3295

Rotary X Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas X  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Company Stonestreet Lands Company  
Address P.O. Box 350 Spencer, WV  
Farm Effie Jarvis Acres 38  
Location (waters) Stinson  
Well No. 1-S-156 Elev. 923  
District Washington County Calhoun  
The surface of tract is owned in fee by Effie Jarvis  
Address Chloe, WV  
Mineral rights are owned by Effie Jarvis  
Address Chloe, WV  
Drilling Commenced 6-18-81  
Drilling Completed 6-22-81  
Initial open flow 15,000 cu. ft. 0 bbls.  
Final production 620,000 cu. ft. per day 0 bbls.  
Well open 5 hrs. before test 615 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			60 sks
Cond. 13-10"			
9 5/8			
8 5/8	188	188	
7			
5 1/2			
4 1/2		2086	70 sks rfc
3			
2			
Lines Used			

Well treatment details:

J-266 Gell 250 lbs. J-218 Gell breaker 99 lbs  
J-318 Gell breaker and 20 gals. Yrpsd conversion charge 14,700 gals.  
L-53 Clay control agent 15 gals. F-78 Ezeflo surfactant 10 gals.  
W-22 Anti sludging 15 gals. acid 15% HCL 500 gals., 500 bbls. water  
A-200 Inhibitor 1 gal. M-76 bactericide 15 gals.  
20/40 sand 30,000 lbs. 80/100 sand 15,000 lbs.

Attach copy of cementing record.

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Coal was encountered at None Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water 50 Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Blue Monday, Big Injun Depth 1792-2014

WV Department of Environmental Protection

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Not recorded			0	1000		0 to 1000 not recorded is continued on the back
Shale			1000	1020		
Sand & Shale			1020	1050		
Shale			1050	1168		
Sand & Shale			1168	1244		
Shale			1244	1322		
Sand & Shale			1322	1342		
Shale			1342	1466		
Sand & Shale			1466	1510		
Shale			1510	1548		
Salt sand			1548	1590		
Shale			1590	1598		
Salt sand			1598	1710		
Shale			1710	1718		
Salt sand			1718	1766		
Little Lime			1766	1792		
Blue Monday			1792	1836		
Big Lime			1836	1894		
Big Injun			1894	2014		
Shale			2014	2114		TD

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Clay			0	40		
Sand & Shale			40	90		
Red Rock			90	150		
Sand & Shale			150	201		
Red Rock			201	275		
Sand & Shale			275	320		
Red Rock			320	400		
Sand & Shale			400	450		
Red Rock			450	475		
Sand & Shale			475	500		
Red Rock			500	575		
Sand & Shale			575	600		
Red Rock			600	630		
Sand & Shale			630	670		
Shale			670	720		
Sand & Shale			720	795		
Shale			795	840		
Sand & Shale			840	900		
Shale			900	950		
Sand & Shale			950	1000		

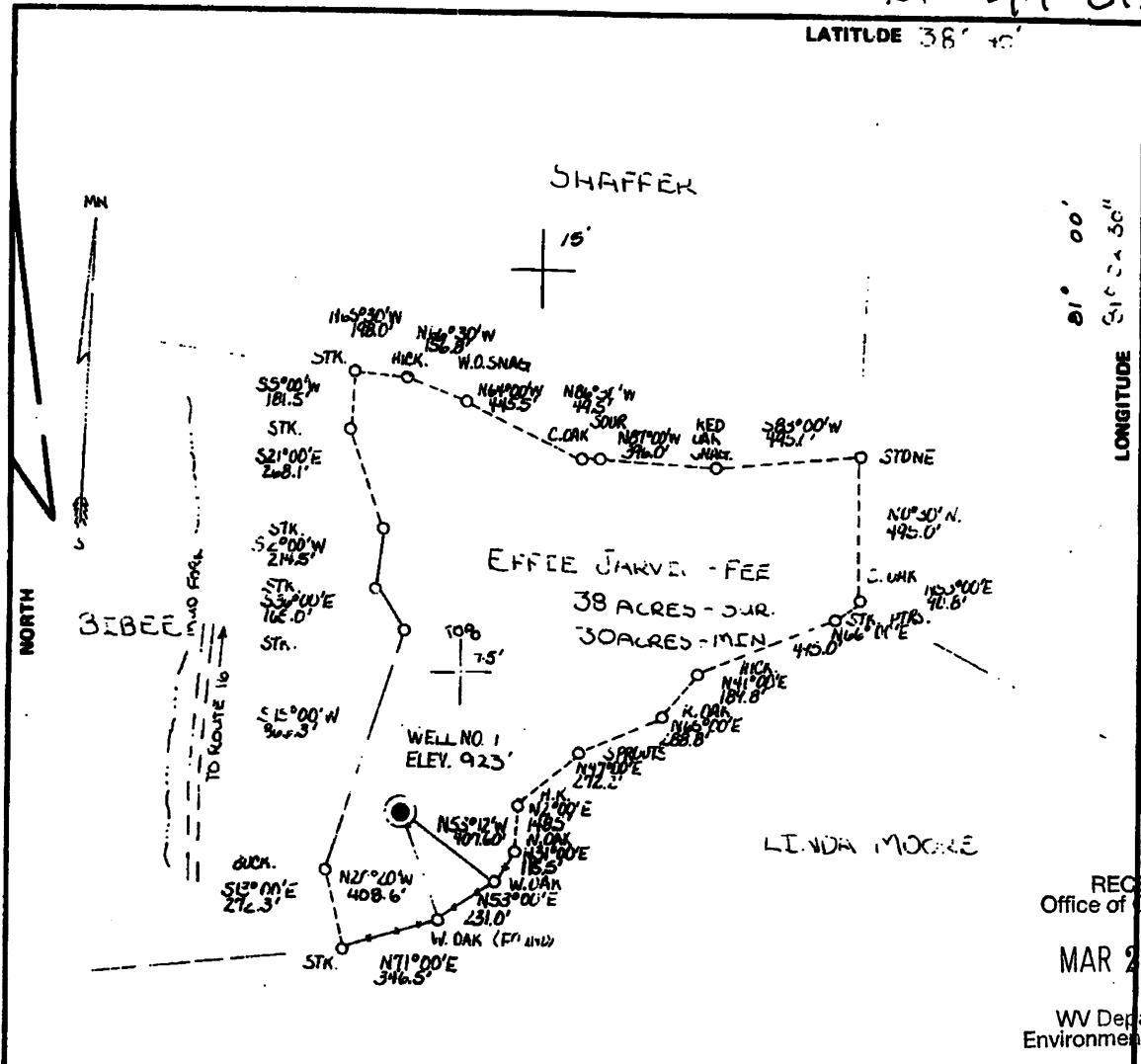
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Date July 29, 19 81

APPROVED  XXXX  
General Manager



LATITUDE 38° 10'  
 LONGITUDE 81° 00' 31.5\"

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 WV Department of  
 Environmental Protection

FILE NO. EFFIE JARVIS  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF  
 ACCURACY 1/200  
 PROVEN SOURCE OF  
 ELEVATION B.M. ELEV. 907'  
STINSON CK. BRIDGE

I THE UNDERSIGNED, HEREBY CERTIFY THAT  
 THIS PLAT IS CORRECT TO THE BEST OF MY  
 KNOWLEDGE AND BELIEF AND SHOWS ALL THE  
 INFORMATION REQUIRED BY LAW AND THE REGU-  
 LATIONS ISSUED AND PRESCRIBED BY THE DEPAR-  
 TMENT OF MINES.  
 (SIGNED) [Signature]  
 R.P.E. 1596 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

(+) DENOTES LOCATION OF  
 WELL ON UNITED STATES  
 TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE JAN 23 1981  
 OPERATOR'S WELL NO. 1-5-156  
 API WELL NO. \_\_\_\_\_  
47 - 013 - 3295  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS ● LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW ●  
 LOCATION: ELEVATION 923' WATER SHED STINSON CK.  
 DISTRICT WASHINGTON COUNTY CALDWELL  
 QUADRANGLE CHIEF 1.  
 SURFACE OWNER EFFIE JARVIS ACREAGE 3.8  
 OIL & GAS ROYALTY OWNER EFFIE JARVIS LEASE ACREAGE 3.8  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL ● CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
 FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION 316 INJUN ESTIMATED DEPTH 1970'  
 WELL OPERATOR STONESTREET LANDS CO. DESIGNATED AGENT D.V. STONESTREET  
 ADDRESS SPENCER, W. VA. ADDRESS SPENCER, W. VA.

47-013-03295P

WW-4A  
Revised 6-07

1) Date: February 18, 2020  
2) Operator's Well Number  
Effie Jarvis #1  
3) API Well No.: 47 - 013 - 03295

**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>Eric Jarvis</u>	Name <u>N/A</u>
Address <u>1578 Stinson Rd.</u>	Address _____
<u>Chloe, WV 25325</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 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	<u>Ross &amp; Wharton Gas Co. Inc.</u>	Environmental Protection
By:	<u><i>Mike Ross</i></u>	WV Department of
Its:		<u>MAR 26 2020</u>
Address	<u>354 Morton Ave.</u>	Office of Oil and Gas
	<u>Buckhannon, WV 26201</u>	RECEIVED
Telephone	<u>1-304-472-4289</u>	

Subscribed and sworn before me this 13<sup>th</sup> day of March, 2020  
Brenda K Bush Notary Public  
My Commission Expires September 27, 2020

**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 [depprivacyoffier@wv.gov](mailto:depprivacyoffier@wv.gov).

47-013-03295P

WW-9  
(5/16)

API Number 47 - 013 - 03295  
Operator's Well No. Effie Jarvis #1

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) Stinson Creek Quadrangle Chloe

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

*Any well effluent must be contained in tanks before disposing of off-site.*

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_ *JMM*

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? \_\_\_\_\_

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Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. \_\_\_\_\_

MAR 26 2020

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) \_\_\_\_\_

-Landfill or offsite name/permit number? \_\_\_\_\_

WV Department of Environmental Protection

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 Mike Ross

Company Official (Typed Name) Mike Ross

Company Official Title President

Subscribed and sworn before me this 13<sup>th</sup> day of March, 2020

Brenda K Bush



My commission expires September 27, 2020



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
<u>Contractor's Mix</u>		<u>Contractor's Mix</u>	
<u>Fescue</u>	<u>30</u>	<u>Fescue</u>	<u>30</u>
_____	_____	_____	_____
_____	_____	_____	_____

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: Jeremy Jones 

Comments: \_\_\_\_\_

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Title: inspector OOG Date: 3-17-2020

Field Reviewed? ( ) Yes ( ) No

N/A

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): Stinson Creek 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

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

Stinson Creek

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MAR 26 2020  
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- 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

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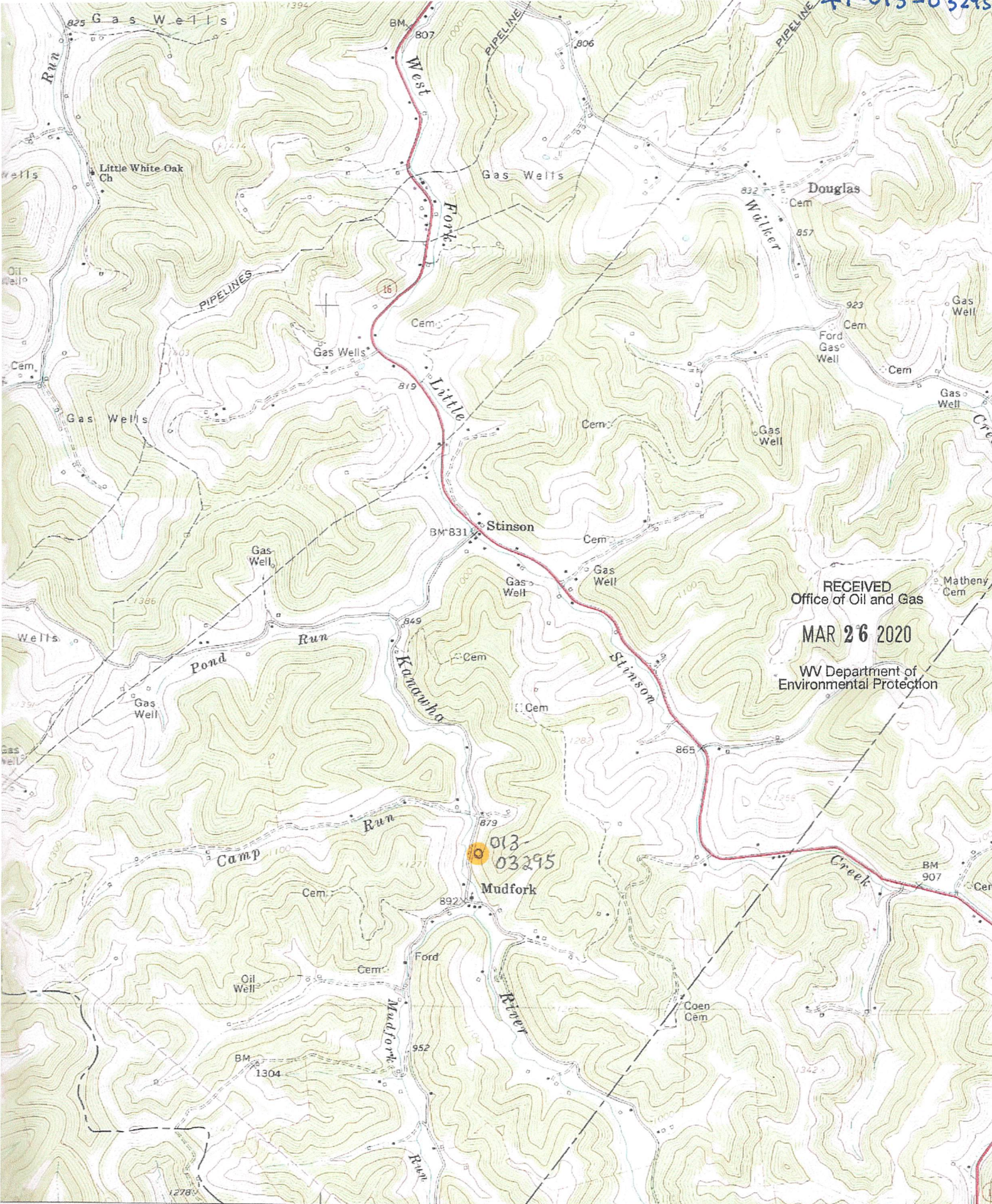
8. Provide provisions and frequency for inspections of all GPP elements and equipment.

N/A

Signature: Mike Ross

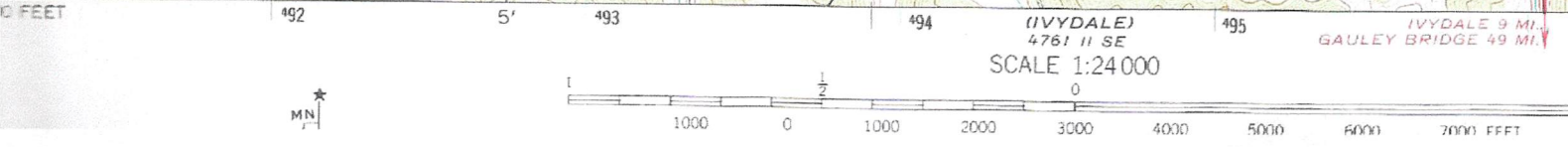
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47-013-03295A



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013-03295



WW-7  
8-30-06



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

API: 47-013-03295 WELL NO.: #1

FARM NAME: Effie Jarvis

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Calhoun DISTRICT: Washington

QUADRANGLE: Chloe

SURFACE OWNER: Eric Jarvis

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ROYALTY OWNER: \_\_\_\_\_

UTM GPS NORTHING: 4277010.3

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Environmental Protection

UTM GPS EASTING: 493531.4 GPS ELEVATION: 923'

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:

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

March 13, 2020

Date