



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

Earl Ray Tomblin , Governor
Randy C. Huffman , Cabinet Secretary
www.dep.wv.gov

Wednesday, August 03, 2016
WELL WORK PERMIT
Vertical / Plugging - 2

EXCO RESOURCES (PA), LLC
260 EXECUTIVE DRIVE

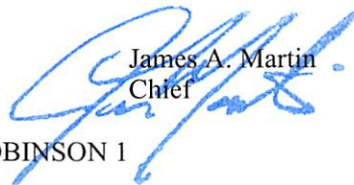
CRANBERRY TOWNSHIP, PA 16066

Re: Permit approval for ROBINSON 1
47-085-03293-00-00

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.

Please be advised that form WR-35, Well Operators Report of Well Work 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: ROBINSON 1
Farm Name: ROBINSON, D.
U.S. WELL NUMBER: 47-085-03293-00-00
Vertical / Plugging - 2
Date Issued: 8/3/2016

Promoting a healthy environment.

08/05/2016

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.
4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

2) Operator's
Well No. Robinson D1
API Well No. 47-085 03293

**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 X or Underground storage ___) Deep ___ / Shallow x

5) Location: Elevation 828 Watershed Hughes River
District Clay County Ritchie Quadrangle Harrisville

6) Well Operator EXCO Resources (PA), LLC 7) Designated Agent Diana Stampler/C.T.Corp.
Address PO Box 8. Address 5400 D Big Tyler Road
Ravenswood, WV 26164 Charleston, WV 25301

Oil and Gas Inspector to be notified
Name Mike Goff
Address PO Box 134, PULLMAN wv 26421.

PHONE 304 549 9823

9) Plugging Contractor
Name R & R WELL SERVICE
Address 42 LYNCH RIDGE
WALTON, WV 25286

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

- Remove all equipment used to produce well
- Gel hole TD 1960
- CEMENT 1960 TO 1760 OVER 4 ½ CSG AND perms
- Freepoint, cut and pull 4 ½ csg
- Gel to 50' of cut of 4 ½
- Cement 100' across cut
- Gel to 880
- Cement 880 to 780 across elevation
- Gel to 250'
- Cement 250 to surface

RECEIVED
Office of Oil and Gas

JUL 05 2016

WV Department of
Environmental Protection

set monument with proper API

Signature mcg Date 6/29/16

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

85032831

Form OO-10



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

- Rotary
- Spudder
- Cable Tools
- Storage

Quadrangle Harrisville
Permit No. RTT 3293

WELL RECORD

Oil or Gas Well Gas Oil
(LIND)

Company Robinson Gas Company
 Address 5945-Hilson Drive-Huntington, W. Va.
 Farm Denzil Robinson Acres 1.02
 Location (water) Hughes River
 Well No. -1- Elev. 828'
 District Clay County Putnam
 The surface of tract is owned in fee by Denzil Robinson
 Address Harrisville, W. Va.
 Mineral rights are owned by Denzil Robinson
 Address Harrisville, W. Va.
 Drilling commenced 12-6-59
 Drilling completed 1-16-59
 Date Shot From To
 Well
 Open Flow /10ths Water in Inch
 /10ths Merc. in Inch
 Volume 10000 Estimated Cu. Ft.
 Rock Pressure lbs hrs
 Oil bbls, in 24 hrs
 WELL ACIDIZED (DETAILS)
 WELL FRACTURED (DETAILS) .250 Gals Acid-2000# 20/40 Sand-500 Bbls. Water.

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|----------------|
| Size | | | |
| 16 1/2" | 18' | 18' | Kind of Packer |
| 13 | | | |
| 10 | 368' | -0- | Size of |
| 8 1/2" | 1022' | -0- | Depth set |
| 6 1/2" | | | |
| 5 3/16" | | | |
| 4 1/2" | 1960' | 1960' | Perf. top |
| 3" | | | Perf. bottom |
| 2" | | | Perf. top |
| Liners Used | | | Perf. bottom |

Attach copy of cementing record.
 CASING CEMENTED 4 1/2" SIZE 1960' No. FL 1-17-59 Date
 Amount of cement used (bags) 75-Raga Expando Cement
 Name of Service Co. Tawson Oil and Gas Well Co., Co.
 COAL WAS ENCOUNTERED AT FEET INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open flow or bbls) 1,200,000 3 POPD 1,200 Mcf + 3 BOPD
 ROCK PRESSURE AFTER TREATMENT 600 HOURS 2 1/2
 Fresh Water 3 bbls Feet 00' Salt Water Feet 1270'
 Producing Sand Inj-on Depth 1016-3 1/2

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth | Remarks |
|------------------|-------|--------------|------|--------|-------------------|-------|---------|
| Top Soil | | | 102 | 10 | | | |
| Black Slate | | | 10 | 80 | | | |
| Sand | | | 80 | 103 | | | |
| Grey Shale | | | 103 | 180 | | | |
| Red Rock | | | 180 | 190 | | | |
| Lime | | | 190 | 200 | | | |
| Sand | | | 200 | 250 | | | |
| Red Rock | | | 250 | 290 | | | |
| Lime | | | 290 | 290 | | | |
| Slate | | | 290 | 320 | | | |
| Sand | | | 320 | 355 | | | |
| Slate Shells | | | 355 | 390 | | | |
| Sand | | | 390 | 420 | | | |
| Slate Shells | | | 420 | 440 | | | |
| Red Rock | | | 440 | 455 | | | |
| Slate | | | 455 | 470 | | | |
| Red Rock | | | 470 | 480 | | | |
| Slate | | | 480 | 500 | | | |
| Red Rock | | | 500 | 525 | | | |
| Slate Shells | | | 525 | 620 | | | |
| Red Rock | | | 620 | 715 | | | |
| Slate Shells | | | 715 | 770 | | | |
| Lime Gritty | | | 770 | 790 | | | |
| Black Slate | | | 790 | 815 | | | |
| Slate Shells | | | 815 | 989 | | | |
| Black Slate | | | 989 | 1000 | | | |
| Slate and Shells | | | 1000 | 1055 | | | |
| Sand | | | 1055 | 1100 | | | |
| Slate Shells | | | 1100 | 1200 | | | |



RECEIVED
Office of Oil and Gas

JUL 05 2016

WV Department of
Environmental Protection

APR 08 1959

08/05/2016

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth Feet | Remarks |
|-----------------------|-------|--------------------|------|-------------|---------------------|-------------|------------|
| Sand | | | 1200 | 1270 | | | |
| Slate | | | 1270 | 1300 | | | |
| Sand | | | 1300 | 1310 | | | |
| Black Slate | | | 1310 | 1325 | | | |
| Slate and Shells | | | 1325 | 1355 | | | |
| Sand | | | 1355 | 1376 | | | |
| Slate | | | 1376 | 1425 | | | |
| Sand Broken | | | 1425 | 1500 | | | |
| Sand | | | 1500 | 1600 | | | |
| Sand Broken | | | 1600 | 1654 | | | |
| Sand Hard | | | 1654 | 1670 | | | |
| Sand Broken | | | 1670 | 1705 | | | |
| Dark Gritty Limestone | | | 1705 | 1707 | | | |
| Sand <i>Big Fejun</i> | | | 1707 | 1879 | Gas 1801-10 | Oil 1810-17 | productive |
| Slate | | | 1773 | 1890 | | | |
| Sand <i>Equus</i> | | | 1890 | 1915 | Gas and Oil 1879-93 | | same |
| Slate | | | 1915 | 1960 | | | |
| | | Total Depth | | 1960 | | | |

RECEIVED
Office of Oil and Gas
JUL 05 2016
WV Department of
Environmental Protection

Date 3-11, 19 69

APPROVED Robinson Gas Company, Owner

By _____ (Title) Agent

08/05/2016

8503293P

FORM WV-2(B) FILE COPY (Obverse)



1) Date: Jan 7, 19 87
2) Operator's Well No. D. Robinson #1
3) API Well No. 47 085 3293 -F
State County Permit

RECEIVED JAN 09 1987

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, OIL AND GAS DIVISION APPLICATION FOR A WELL WORK PERMIT

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

WELL TYPE: Gas X

B (If "Gas", Production X) Underground storage Deep Shallow X

5) LOCATION: Elevation: 828' Watershed: North Fork of Hughes River
District: Clay County: Ritchie 085 Quadrangle: Harrisville 7.5 393

6) WELL OPERATOR: United Operating CODE: 50800 7) DESIGNATED AGENT: Lyle Coffmar
Address: Suite 930 Commerce Sq. Charleston, WV 25301
Address: 527 Norris Rd. Glenville, WV 26351

8) OIL & GAS INSPECTOR TO BE NOTIFIED: Name: Samuel Hersman Address: P.O. Box 66 Smithville, WV 26178
9) DRILLING CONTRACTOR: Name: Address:

10) PROPOSED WELL WORK: Drill Drill deeper Redrill Stimulate X
Plug off old formation Perforate new formation X
Other physical change in well (specify)

11) GEOLOGICAL TARGET FORMATION: Irjun
12) Estimated depth of completed well, 1960 feet
13) Approximate strata depths: Fresh, 80 feet; salt, feet.
14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes No X

15) CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS, FOOTAGE INTERVALS, CEMENT FILLUP OR SACKS, PACKERS. Includes rows for Conductor, Fresh water, Coal, Intermediate, Production, Tubing, Liners.

OFFICE USE ONLY DRILLING PERMIT

Permit number 47-085-3293-F Date January 9 19 87

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector (No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof. Permit expires January 9, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

RECEIVED Office of Oil and Gas WV Department of Environmental Protection

Table with columns: Bond, Agent, Plat, Casing, Fee, WPCF, S&E, Other. Includes handwritten values like 12361, 165, AS, AB.

NOTE: Keep one copy of this permit posted at the drilling location.

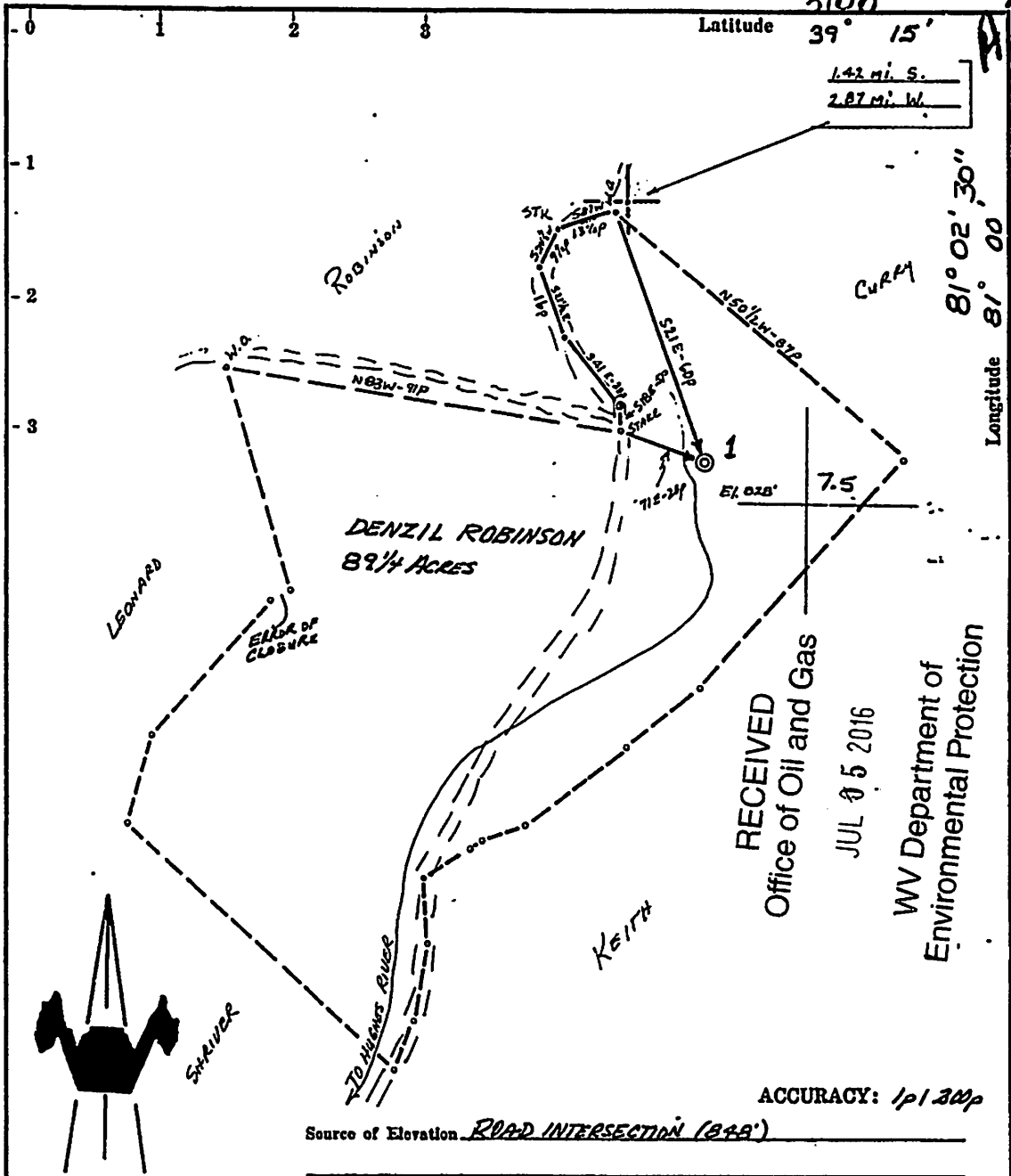
John D. Johnston Director, Division of Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

9526

081057018

12/1/1968 8503293P



- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

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 mining laws of West Virginia.

Chet Waterman

| | |
|-----------------------------|--------------------------|
| Company | United Operating |
| Address | Charleston, WV 25301 |
| Farm | DENZIL ROBINSON |
| Tract | Acres 89 1/4 Lease No. |
| Well (Farm) No. | 1 Serial No. |
| Elevation (Spirit Level) | 828' |
| Quadrangle | HARRISVILLE |
| County | RITCHIE District CLAY |
| Engineer | CHET WATERMAN |
| Engineer's Registration No. | 3788 |
| File No. | 68003-198 Drawing No. |
| Date | 11/13/68 Scale 1" = 300' |

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. WT-3293-F
FRAC CANCELLED

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

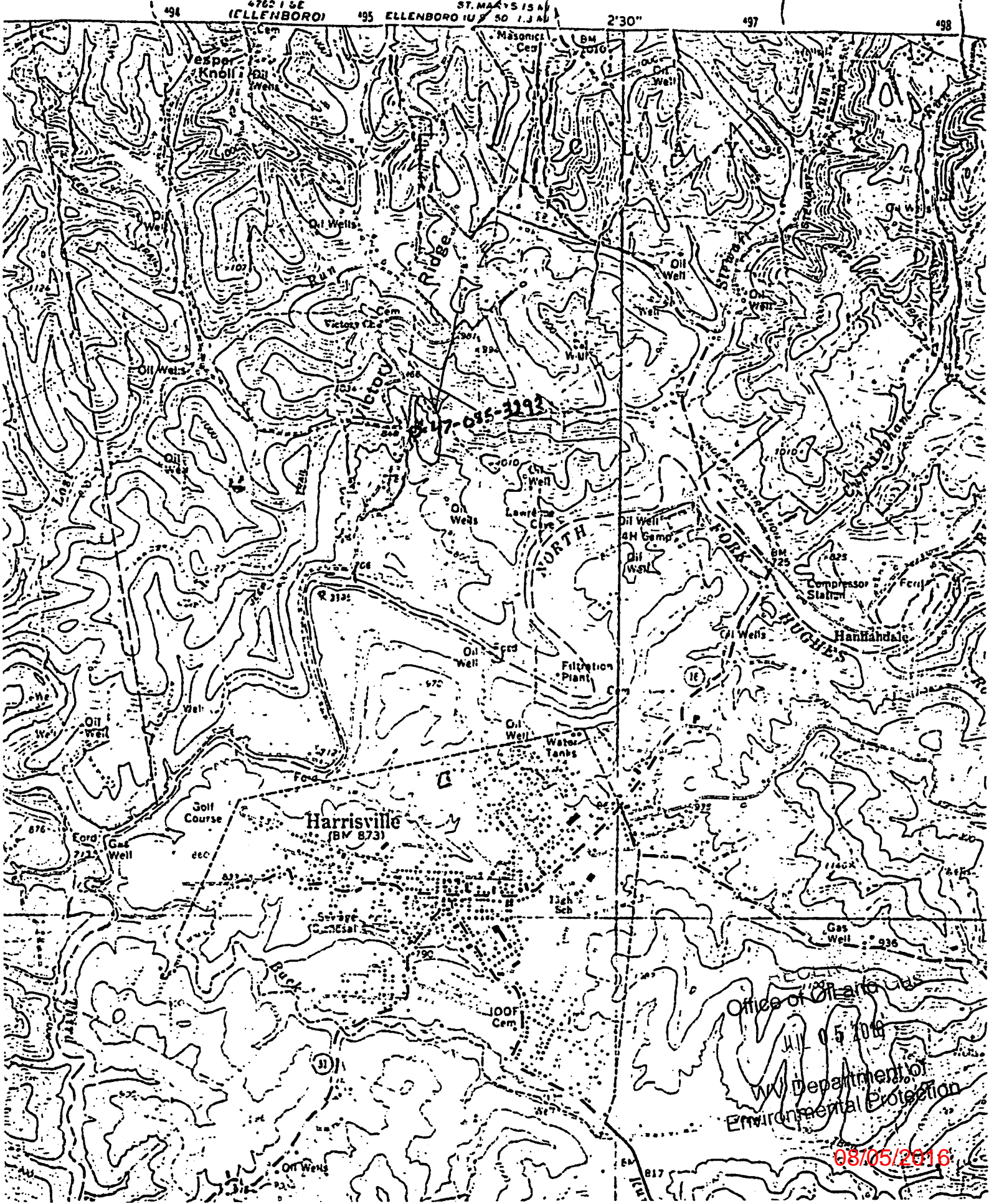
00HL

RECEIVED Office of Oil and Gas JUL 05 2016 WV Department of Environmental Protection

RI + 3293-F

STATE OF WEST VIRGINIA
REPRESENTED BY THE
STATE OF WEST VIRGINIA GEOLOGICAL SURVEY
AND OTHER STATE AGENCIES

65-03293P



Office of State
05/10/16
Department of
Environmental Protection

08/05/2016

8503293P

WW-4A
Revised 6-07

1) Date: 5/1/2016
2) Operator's Well Number
Robinson D1
3) API Well No.: 41 - 085 3293

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: (a) Name See Attachment Address _____
(b) Name _____ Address _____
(c) Name _____ Address _____
5) (a) Coal Operator Name None Address _____
(b) Coal Owner(s) with Declaration Name _____ Address _____ P.O. _____
(c) Coal Lessee with Declaration Name _____ Address _____
6) Inspector Mike Goff (c) Coal Lessee with Declaration
Address PO BOX 134 Name
Pullman WV 26421 Address
Telephone 304 549 9823

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

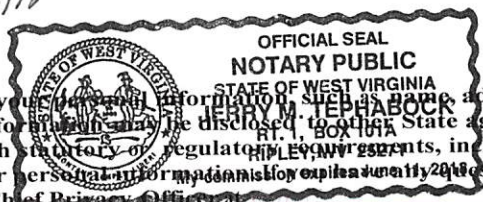
Well Operator EXCO RESOURCES (PA), LLC
By: Randall Sheets *Randall D. Sheets*
Its: Supervisor
Address P O BOX 8
RAVENSWOOD, WV 26164
Telephone 304-273-5371

Subscribed and sworn before me this 29th day of June 2016 Notary Public

My Commission Expires 6/11/18

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 regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have questions about our use of your personal information, please contact DEP's Chief Privacy Officer at _____.



Jerry M. Tephabock

JUL 05 2016

WV Department of Environmental Protection
08/05/2016

Attachment for Denzil Robinson #1, Surface Owners

Map 33 par 19 Ronald Dale and Kathryn Jean Woodford /

%Corelogic TaxService

1 Corelogic Way

West Lake TX 76262-5310

Map 33 Par 19.1 Mary McDonald /

%Ronald and Kathy Woodford

2300 Vicrtory Ridge RD.

Harrisville WV 26362-7432

RECEIVED
Office of Oil and Gas
JUL 05 2016
WV Department of
Environmental Protection

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EXCO Resources (PA), LLC OP Code 307860

Watershed (HUC 10) Huhes River Quadrangle Harrisville

Elevation 828 County Ritchie District Clay

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No

Will a pit be used for drill cuttings? Yes _____ No

*ANY WELL EFFLUENT WILL BE CONTAINED
IN TANKS & DISPOSED OF PROPERLY. gmm
MAC
6/24/16*

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
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain no fluids are expected in return Crystallized & Disposed)

Will closed loop system be used? _____ **RECEIVED**

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____ **Office of Oil and Gas**

-If oil based, what type? Synthetic, petroleum, etc. _____ **JUL 05 2016**

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____ **WV Department of
Environmental Protection**

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

-Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 *Randall Sheets*
Company Official (Typed Name) Randall Sheets
Company Official Title Supervisor



Subscribed and sworn before me this 29th day of June, 2016

Jerry M. Tephobock Notary Public
My commission expires 6/11/18

Proposed Revegetation Treatment: Acres Disturbed 0.5 Prevegetation pH 6.0

Lime 2 Tons per Acre of correct to 6.5
Fertilizer (10-20-20 or equivalent) 500lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

| Seed Type | Area I | | Seed Type | Area II | |
|-----------------|--------|----------|------------|---------|----------|
| | | lbs/acre | | | lbs/acre |
| KENTUCKY FESCUE | | 40 | SAME AS #1 | | |
| ALSIKE CLOVER | | 5 | | | |
| ANNUAL RYE | | 16 | | | |

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Doff

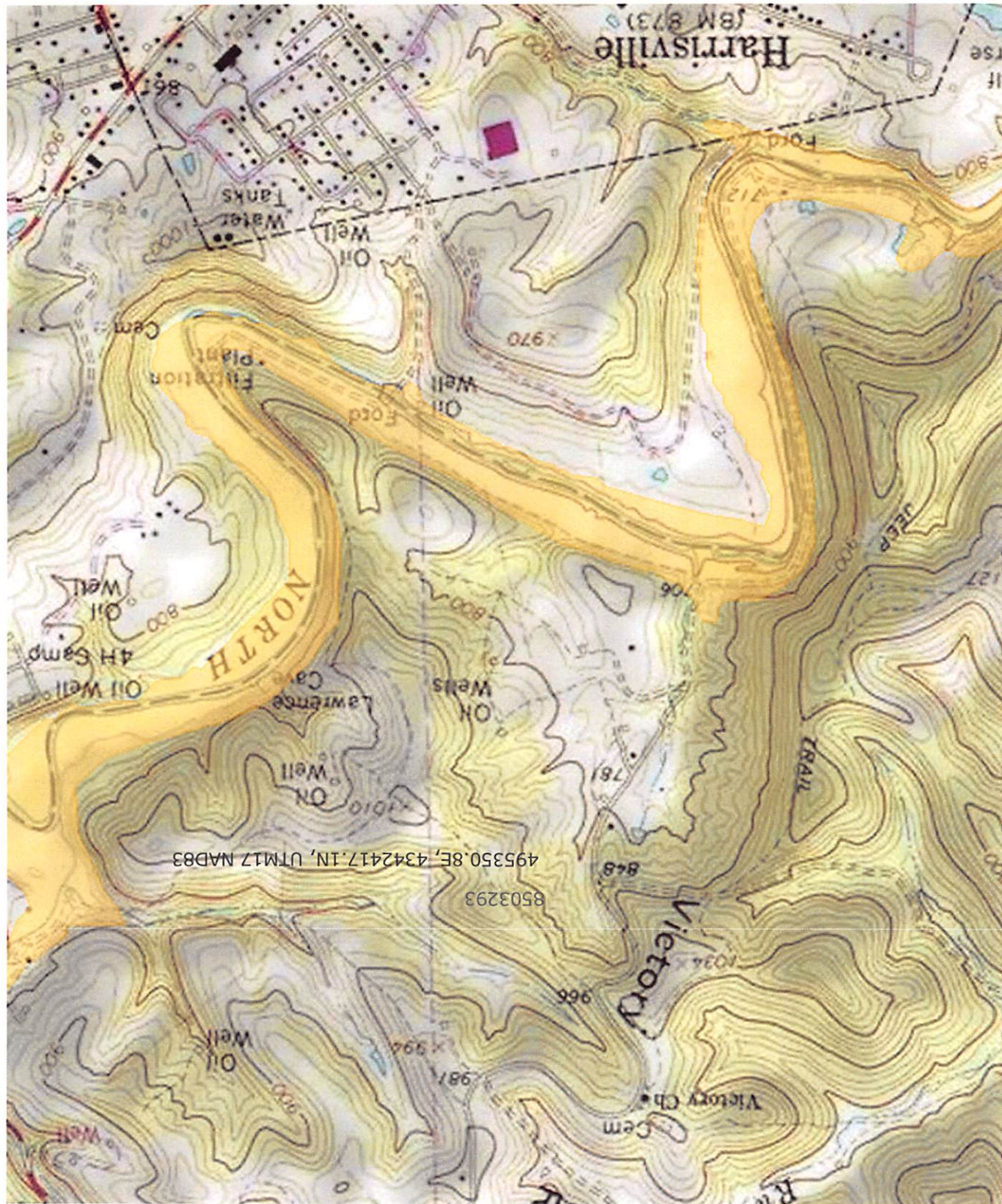
Comments: Reclaim disturbed areas

Title: Oil & Gas Inspector

Date: 6/24/16

Field Reviewed? Yes No

RECEIVED
Office of Oil and Gas
JUL 05 2016
WV Department of
Environmental Protection 08/05/2016



495350.8E, 4342417.1N, UTM17 NAD83

8503293

WW-7
8-30-06



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

API: 47 085 03293 WELL NO.: Robinson D1

FARM NAME: Denzil Robinson

RESPONSIBLE PARTY NAME: EXCO Resources (PA), LLC

COUNTY: Ritchie DISTRICT: clay - 01

QUADRANGLE: Harrisville - 393

SURFACE OWNER: Sean Tallman, Linda McDonald, Nellie Robinson

ROYALTY OWNER: Ronald D. and Kathryn J. Woodford, Etal

UTM GPS NORTHING: 434 247.1

UTM GPS EASTING: 495 350.8 GPS ELEVATION: 787

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

RECEIVED
Office of Oil and Gas

JUL 05 2016

WV Department of
Environmental Protection

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.

Randall Q. Sleets Supervisor
Signature Title

6/29/16
Date