west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

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

December 08, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1502616, issued to RANGE RESOURCES - PINE MOUNTAIN, INC., 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 all 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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: PG 32
Farm Name: BARRINGER, PAUL II - TRST
API Well Number: 47-1502616
Permit Type: Plugging
Date Issued: 12/08/2014

1502616P

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.

15 02616P

WW-4B
Rev. 2/01

1) Date October 15, 2014
2) Operator's Well No. PMOG 32
3) API Well No. 47- 015 - 02616

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 1056' Watershed Flat Fork Creek
District Buffalo County Clay Quadrangle Strange Creek 7.5' 623

6) Well Operator Range Resource - Pine Mountain Inc.
Address P.O. Box 2136
Abingdon, VA 24212

7) Designated Agent Geary Legg
Address 158 Big Sandy Road
Newton, WV 25266

8) Oil and Gas Inspector to be notified
Name Ed Gainer
Address P.O. Box 821
Spencer, WV 25276

9) Plugging Contractor
Name To be determined upon permit approval
Address

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

Casing: TD - 2029'
16" 32
9 5/8" 354 175 sks CTS
4 1/2" 1998 195 sks, est TOC @ 1000'
2 3/8" 1915

6% gel between cement plugs

GEL BELOW 1ST PLUG.
Plug No. 1 1950-1750
Free point, cut & pull 4 1/2" est 1000'
Plug No. 2 1050-950
Plug No. 3 400-300
Plug No. 4 100-0

SET MONUMENT.

Received
Office of Oil & Gas
OCT 31 2014

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

Work order approved by inspector _____ Date 10/23/14

WR-35

API # 47- 015-02616 P

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Barringer, Paul B. II Trust — Operator Well No.: PMOG 32

LOCATION: Elevation: 1056.13 — Quadrangle: Strange Creek 7.5'

District : Buffalo — County : Clay
Latitude : 12,400 Feet South of 38 Deg. 32 Min. 30 Sec.
Longitude: 11,900 Feet West of 80 Deg. 55 Min. 0 Sec.

Company: **PINE MOUNTAIN OIL AND GAS**
448 NE Main St., P. O. Box 5100
Lebanon, VA 24266-0000

Agent: CHRISTOPHER A. FARMER

Inspector: RICHARD CAMPBELL
Permit Issued: 5/24/2000
Well Work Commenced: 5/31/2000
Well Work Completed: 11/3/2000
Verbal Plugging
Permission Granted on:
Rotary X Cable Rig
Total Depth (feet): 2029 kb
Fresh Water Depths (feet): 22, 130 kb
Salt Water Depths (feet):
Is coal being mined in area? (Y/N) N
Coal Depths (feet): 62, 200, 280 kb

Casing & Tubing	Used in Drilling	Left In Well	Cement Fill Up Cu.Ft.
16	32		
9-5/8	354	354	175 sk
4-1/2		1998	195 sk
2-3/8		1915	

CT?

OPEN FLOW DATA

1929-37 kb
Production Formation Big Injun/Big Lime Pay zone depth (ft) 1801-88 kb
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 250 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 4 Hours
Static Rock Pressure 350 psig (surface pressure) after 72 Hours

Second Producing Formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static Rock Pressure _____ psig (surface pressure) after _____ Hours

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 GEOLOGIAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELBORE.

Received
Office of Oil & Gas
OCT 31 2014

For: **PINE MOUNTAIN OIL AND GAS, INC.**

By: _____
Date: _____

WR-35

API # 47- 015-02616 P

Completion

1st Stage: Perf 1929 -1937 kb 17h
Frac Big Injun w/251 bbl 25# gel x-link, BD @ 1000# w/500 gal 15% HCl
Avg Rate - 21 bpm, Avg Press - 800#, Max Press - 1050#, Avg N2 - 3000 scfm
Total N2 – 60,500 scf, Total 20/40 sand – 33,500#
ISIP – 250#

2nd Stage: Perf 1801 - 1803 kb 3h, 1879 – 1881 kb 3h, 1884 – 1888 kb 5h
Acidize Big Lime w/60 bbl 28% HCl, BD @ 800# w/500 gal 15% HCl
Avg Rate - 13 bpm, Avg Press - 1800#, Max Press - 3100#, Avg N2 - 3500 scfm,
Total N2 – 55,000 scf
ISIP - 1100#

Well Log

Formation	Top (ft)*	Bottom (ft)*
Sand and Shale	0	62
Coal	62	65
Sand and Shale	65	200
Coal	200	205
Sand and Shale	205	280
Coal	280	285
Sand and Shale	285	1030
Salt Sand	1030	1111
Sand and Shale	1111	1342
Upper Maxon	1342	1390
Shale	1390	1459
Middle Maxon	1459	1511
Shale	1511	1540
Lower Maxon	1540	1659
Little Lime	1659	1702
Blue Monday	1702	1711
Shale	1711	1740
Big Lime	1740	1943
Shale	1943	2029
TD	2029	

* Depths 10 ft KB

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OCT 31 2014

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OCT 31 2014

WW-4A
Revised 6-07

$100.00
CK 600379

1) Date: October 13, 2014
2) Operator's Well Number
PMOG 32

3) API Well No.: 47 - 015 - 02616

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

4) Surface Owner(s) to be served:
(a) Name: Allegheny Rural NMTC Forestlands, LLC
Address: 3001 Emerson Avenue
Parkersburg, WV 26104

(b) Name:
Address:

(c) Name:
Address:

6) Inspector: Ed Gainer
Address: PO Box 821
Spencer, WV 25276
Telephone:

5) (a) Coal Operator
Name:
Address:

(b) Coal Owner(s) with Declaration
Name: CNX Land Resources
Address: 1000 Consol Energy Drive
Cannonsburg, PA 15317

Name:
Address:

(c) Coal Lessee with Declaration
Name:
Address:

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.

KIMBERLEY ALLISON ELLER
NOTARY PUBLIC
REG. #7040059
MY COMMISSION EXPIRES
31 MAY 2018
COMMONWEALTH OF VIRGINIA

Well Operator: Range Resources - Pine Mountain, Inc.
By: Ian Landon
Its: Agent
Address: P.O. Box 2136
Abingdon, VA 24212
Telephone: (276) 628-9001

Subscribed and sworn before me this 28th day of OCTOBER 2014
Kimberley Allison Eller Notary Public
My Commission Expires 31 MAY 2018 REG # 7040059

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.

1502616P

The following information was included in the certified mailing to Allegheny Rural NMTC Forestlands:

Well Nos.
ERC&L 8129
ERC&L 7977
ERC&L 8130
ERC&L 7976
PMOG 32
PMOG 23A
CBM 7
CBM 2

Received
Office of Oil & Gas
OCT 31 2014

-Notice of Application to Plug and Abandon a Well (WW-4A)
-Application for a Permit to Plug and Abandon (WW-4B)
-Construction and Reclamation Plan and Site Registration Application Form General Permit for Oil and Gas Pit Waste Discharge (WW-9)
-Legend (WW-9)
-Surface Owner Waiver
-WVDEP Office of Oil and Gas Well Location Form: GPS (WW-7)
-Location Map

1502616P

The following information was included in the certified mailing to CNX Land Resources:

Well Nos.
ERC&L 8129
ERC&L 7977
ERC&L 8130
ERC&L 7976
PMOG 32
PMOG 23A
CBM 7
CBM 2

Received
Office of Oil & Gas
OCT 31 2014

-Notice of Application to Plug and Abandon a Well (WW-4A)
-Application for a Permit to Plug and Abandon (WW-4B)
-Construction and Reclamation Plan and Site Registration Application Form General Permit for Oil and Gas Pit Waste Discharge (WW-9)
-Legend (WW-9)
-Coal Operators Owners and Lessee Waiver (WW-4B)
-WVDEP Office of Oil and Gas Well Location Form: GPS (WW-7)
-Location Map
-Well Record/Well Report

1502616P

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 015 - 02616
Operator's Well No. PMOG 32

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Range Resources - Pine Mountain, Inc. OP Code 307499

Watershed Flat Fork Creek Quadrangle Strange Creek 7.5'

Elevation 1056 County Clay District Buffalo

Description of anticipated Pit Waste: Fluids encountered while plugging subject well

Will a synthetic liner be used in the pit? Yes 20 MIL.

Proposed Disposal Method For Treated Pit Wastes:

- x Land Application
- _____ Underground Injection (UIC Permit Number _____)
- _____ Reuse (at API Number _____)
- _____ Off Site Dispposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Proposed Work For Which Pit Will Be Used:

- _____ Drilling
- _____ Workover
- _____ Other (Explain _____)
- _____ Swabbing
- x Plugging

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.

Received
Office of Oil & Gas
OCT 31 2014

Company Official Signature _____

Company Official (Typed Name) Ian Landon

Company Official Title Agent

Subscribed and sworn before me this 28th day of OCTOBER, 2014

_____ Notary Public
REG # 7040059

My commission expires 31 MAY 2018

KIMBERLEY ALLISON ELLER
NOTARY PUBLIC
REG. #7040059
MY COMMISSION EXPIRES
31 MAY 2018
COMMONWEALTH OF VIRGINIA

1502616 f

Form WW-9

Operator's Well No. PMOG 32

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed .5 Acres Prevegetation pH _____

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Straw 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

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

Photocopied section of involved 7.5' topographic sheet.

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Office of Oil & Gas
OCT 31 2014

Plan Approved by:

Comments:

Title: Inspector Date: 10/2/14

Field Reviewed? (X) Yes ( ) No

1502616P

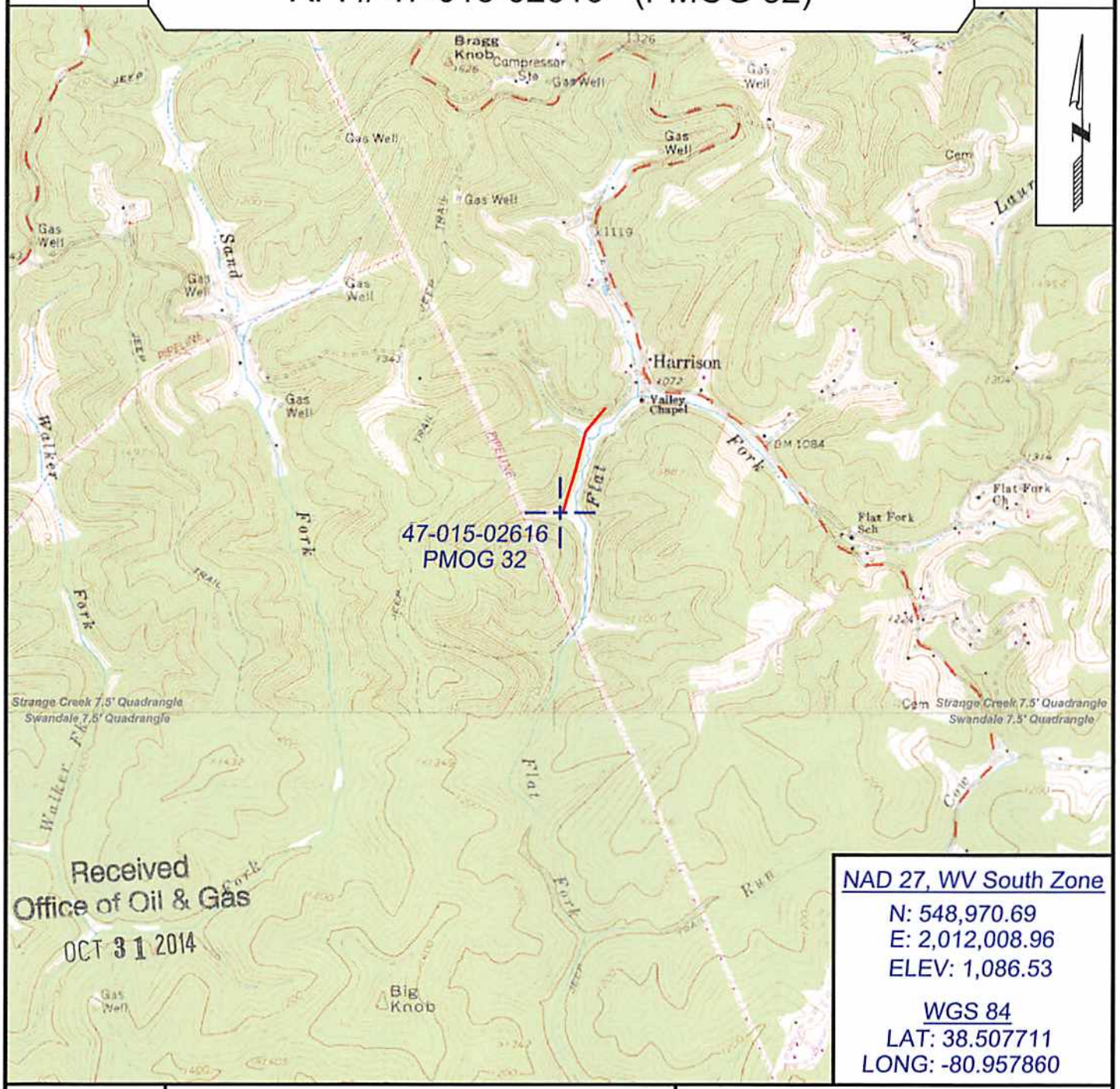
Topo Quad: Strange Creek 7.5' Scale: 1 " = 2000'

County: Clay Date: June 26, 2014

District: Buffalo Project No: 170-04-B-14

API # 47-015-02616 (PMOG 32)

Topo



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Office of Oil & Gas
OCT 31 2014

NAD 27, WV South Zone
N: 548,970.69
E: 2,012,008.96
ELEV: 1,086.53

WGS 84
LAT: 38.507711
LONG: -80.957860

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606
237 Birch River Road
Birch River, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

Range Resources - Pine Mountain, Inc.

406 West Main Street
Abingdon, VA 24210

1502616 P

WW-7
8-30-06

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

API: 47-015-02616 **WELL NO.:** PMOG 32

FARM NAME: Paul Barringer II – Trust

RESPONSIBLE PARTY NAME: Range Resources – Pine Mountain, Inc.

COUNTY: Clay **DISTRICT:** Buffalo

QUADRANGLE: Strange Creek 7.5'

SURFACE OWNER: Allegheny Rural NMTC Forestlands, LLC

ROYALTY OWNER: Range Resources – Pine Mountain, Inc.

UTM GPS NORTHING: 4262150

UTM GPS EASTING: 503674 **GPS ELEVATION:** 322 m (1056 ft)

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 _X_: Post Processed Differential _X_
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.

Received
Office of Oil & Gas
JUL 31 2014

Signature	PS# 2180	7/16/14
	Title	Date