



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

October 09, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-100467, issued to EXCO RESOURCES (PA), LLC, 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 penalties 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: 1

Farm Name: FINDLEY, FLORENCE ETHEL

API Well Number: 47-100467

Permit Type: Plugging

Date Issued: 10/09/2015

Promoting a healthy environment.

10/09/2015

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 under the terms of that agreement.

1) Date June 15, 2015
2) Operator's
Well No. FINDLEY 1
3) API Well No. 47-001 - 00467

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 2070' Watershed Tygart River
District Barker County Barbour Quadrangle Philippi

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

8) Oil and Gas Inspector to be notified Name Kenneth Greynolds
Address 613 Broad Run Rd
Jane Lew, WV 26378
9) Plugging Contractor Name _____
Address _____

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

Pull all tubing and rods.

RIH with tubing to TD 4140' Gel hole

Cement 4140' - 1588' to cover perfs 220 sks

Cut 4 1/2' at 700' & pull

RIH with tubing. Cement 700' - 600' with 30 sks

Pull tubing to 100'

Cement 100' - surface 33 sks

Set monument with proper API #. Reclaim

*DETERMINE FREE POINT OF 4.5". Pull
AS MUCH AS POSSIBLE. KLG
WOC 4 HRS & TAG CEMENT TOP. ADD IF NEEDED
ATTEMPT TO PULL 8 5/8" KLG*

Received
Office of Oil & Gas

AUG 20 2015

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

Work order approved by inspector *[Signature]* Date 7-17-15

10/09/2015



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

Rotary
Spudder
Cable Tools
Storage
Oil or Gas Well Gas
(KIND)

39° 15'

Philippi, S.E. 9-25

WELL RECORD

Permit No. BAR-467

Company: White Shield Oil & Gas Corp.
Address: P.O. Box 2139, Tulsa, Okla. 74101
Name: Findley Acres: 33
Location (waters): Approx. C. of 33 Ac. lse.
Well No.: One Elev.: 2077' D. Fla.
District: Barker County: Barbour
The surface of tract is owned in fee by: Florence Ethel Findley
Address: Buckhannon, W. Va.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size 16			Kind of Packer: Permanent
8 5/8	628		Size of: 2"
5 3/16	4099'		Depth set: 3834'
4 1/2			Perf. top: 1588
3			Perf. bottom: 4030
2			Perf. top: _____
Liners Used			Perf. bottom: _____

Mineral rights are owned by: _____
Address: Same
Drilling commenced: 7-15-69
Drilling completed: 7-24-69
Date Shot: 8-13-69 From: 1588' To: 4030'
With: 49 Shots
Open Flow: _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume: _____ Cu. Ft.
Rock Pressure: _____ lbs. _____ hrs.
Dil: _____ bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS): _____

Attach copy of cementing record.
CASING CEMENTED: 4 1/2" SIZE 4099 No. Ft. 7-25-69 Date
Amount of cement used (bags): 580
Name of Service Co.: Lawson
COAL WAS ENCOUNTERED AT: _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

WELL FRACTURED (DETAILS): Benson & 3rd Riley zones W/1134 BW & 1500 gals. Ac. & 15,000# 20/40 sd. Frac. 5th sd. & squaw W/1275 BW, 1500 gal. A, 48,750 #20/40 sd. 280 MCFGPD 280,000
RESULT AFTER TREATMENT (Initial open Flow or bbls.): _____
ROCK PRESSURE AFTER TREATMENT: 930 # & 530# HOURS: 24
Fresh Water: _____ Feet _____ Salt Water: _____ Feet _____
Producing Sand: Riley & Benson, Squaw & 5th Sd. Depth: Riley 3854, Benson 4019, Squaw 1578, 5th Sd 2267

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
clay			0	4			Received Office of Oil & Gas AUG 20 2015 DEC 1989 RECEIVED Dept. of Mines 10/09/2015
sand			4	7			
"			7	30			
"			30	70			
lime			70	90			
sand			90	148			
shale			148	159			
sand			159	323			
shale & sand			323	350			
sand			350	470			
shale & sand			470	507			
sand			507	548			
shale			548	650			
sand & shale			650	810			
sand			810	825			
shale & sand			825	913			
R.R. & shale			913	1302			
lime			1302	1400			
Injun sd.			1400	1510			
sd. & sh. styks			1510	1670			
"			1670	1882			
R. Rock			1882	1892			
sd., sh. & RR			1892	2270			
sand			2270	2294			
sh & sd.			2294	2388			
"			2388	2504			
"			2504	2804			
"			2804	3180			

Bar 467

Formation	Color	Hard or Soft	Top /	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale & sand			3186	3383			
shale			3383	3560			
shale			3560	3955			
"			3955	4015			
Benson sd.			4015	4035			
shale			4035	4140			
T. D.				4140			

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10/09/2015

Date December 1, 1969

APPROVED White Shield Oil & Gas Corp., Owner

By *J.W. VanHorn* (Agent)
(Title)

100467P

WW-4A
Revised 6-07

256082
5/10/15

1) Date: June 15, 2015
2) Operator's Well Number
FINDLEY 1
3) API Well No.: 47 - 001 - 00467

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

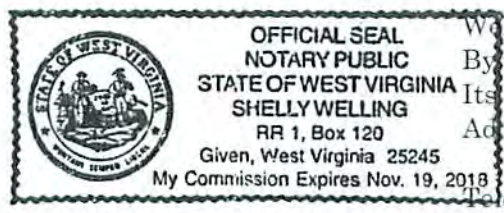
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Wilbur & Teresa Moats</u>	Name _____
Address <u>PO Box 922</u>	Address _____
<u>Philippi, WV 26416</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Kenneth Greynolds</u>	(c) Coal Lessee with Declaration
Address <u>613 Broad Run Rd</u>	Name _____
<u>Jane Lew, WV 26378</u>	Address _____
Telephone <u>304-206-6613</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>EXCO RESOURCES (PA), LLC</u>
By	<u>Mike Scarbrough</u> <i>Mike Scarbrough</i>
Its	Surface Landman
Address	<u>PO Box 8</u>
	<u>Ravenswood, WV 26164</u>
Telephone	<u>304-273-5371</u>

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Office of Oil & Gas
AUG 20 2015

Subscribed and sworn before me this 27 day of July 2015
Shelly Welling Notary Public
My Commission Expires 11/19/2018

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.

10/09/2015

SURFACE OWNER WAIVER

Operator's Well
Number

FINDLEY 1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

Received
Office of Oil & Gas

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of the Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,

Dalton Gray Moats
Signature

Date 8/7/15 Name _____
By _____
Its _____

Signature Date 10/09/2015

100467P

WW-9
(2/15)

API Number 47 - 001 - 00467

Operator's Well No. FINDLEY 1

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) Tygart River Quadrangle Phillipi

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: surface tank will be used

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 _____)

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? _____

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.

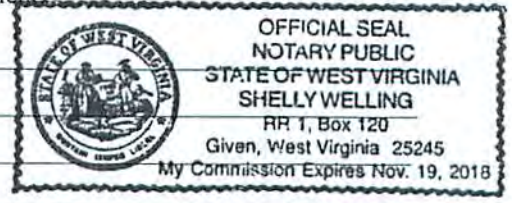
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 Mike Scarbrough

Company Official (Typed Name) Mike Scarbrough

Company Official Title Surface Landman



Subscribed and sworn before me this 30th day of June, 20 15

Shelly Welling Notary Public

My commission expires 11/19/18

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EXCO Resources (PA), LLC

Proposed Revegetation Treatment: Acres Disturbed >1 Prevegetation pH _____

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type _____

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY 31 Fescue	40	same as Area I	
Alsike Clover	5		
Annual Rye	16		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

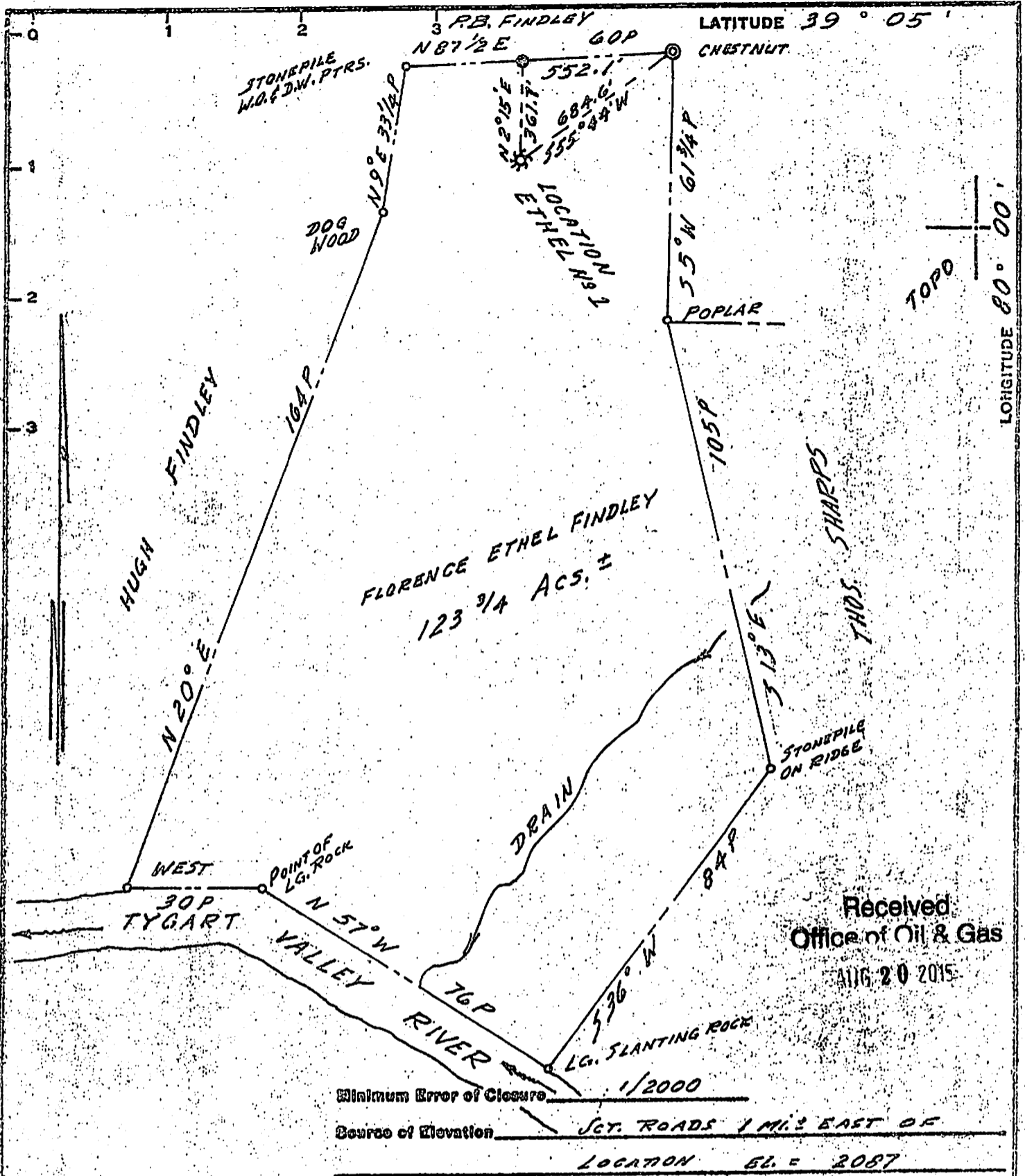
Comments: ROCKWELL RESEED + MULCH ASD

Title: OIL + GAS INSPECTION

Date: 7-17-15

Field Reviewed? () Yes (X) No

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AUG 20 2015



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AUG 20 2015

Minimum Error of Closure 1/2000
Course of Elevation SET. ROADS 1 MI. EAST OF LOCATION S. E. 2087

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 G of the act and regulations of the oil and gas section of the mining laws of West Virginia.

Signed: Paul G. Dean

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

Map No.

Squares 13 3 3 7

Company WHITE SHIELD OIL & GAS CORP.
 Address 1601 SO. MAIN, TULSA, OKLA.
 Farm FLORENCE ETHEL FINDLEY
 Tract ONE Acres 123 3/4 Lease No. _____
 Well (Farm) No. ONE Serial No. _____
 Elevation (Spirit Level) 2070
 Quadrangle PHILIPPI, S. E.
 County BARBOUR District BARKER
 Engineer PAUL G. DEAN
 Engineer's Registration No. 1856
 File No. 136-10 W.S. No. 20 Drawing No. 69-48
 Date JUNE 18, 1969 Scale 1" = 30P = 495'

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

WELL LOCATION MAP
FILE NO. BAR-467
10/09/2015

* 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.



Attribute Search Results Legend Location Search About

API	Permit Type	Received	Issued	Complete	Operator
001-00467	Other Well	NA	1969-07-24	NA	EXCO RESOURCES (WV), INC.

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Office of Oil & Gas
AUG 20 2015



WW-7
8-30-06



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

API: 47-001-00467 WELL NO.: FINDLEY 1
FARM NAME: FLORENCE FINDLEY
RESPONSIBLE PARTY NAME: EXCO RESOURCES (PA), LLC
COUNTY: BARBOUR DISTRICT: BARKER
QUADRANGLE: PHILIPPI
SURFACE OWNER: JOHN B & NANCY LOCKWOOD
ROYALTY OWNER: ROBERT FINDLEY ET AL
UTM GPS NORTHING: 4323787
UTM GPS EASTING: 586253 GPS ELEVATION: 2196'

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 _____
Real-Time Differential X

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 Scarborough Suzanne Landman 8/24/15
Signature Title Date

Received

AUG 24 2015

Office of Oil and Gas
WV Dept. of Environmental Protection