



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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Wednesday, April 19, 2017
WELL WORK PERMIT
Vertical / Plugging

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

BUCKHANNON, WV 262010000

Re: Permit approval for
47-007-01348-00-00

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:
Farm Name: FRAME, CHARLES J. & MARY L.
U.S. WELL NUMBER: 47-007-01348-00-00
Vertical / Plugging
Date Issued: 4/19/2017

Promoting a healthy environment.

04/21/2017

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 February 16, 2017
2) Operator's
Well No. Engel, Dana #2
3) API Well No. 47-007 - 01348

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 1103 Watershed Left Fork Steer Creek
District Otter County Braxton Quadrangle Gassaway (7.5')

6) Well Operator Ross & Wharton 7) Designated Agent Mike Ross
Address Route 5 Box 29 Address PO Box 219
Buckhannon, WV 26201 Coalton, WV 26257

8) Oil and Gas Inspector to be notified Name Danny Mullins
Address 220 Jack Acres Road
Buckhannon, WV 26201
9) Plugging Contractor Name Unknown
Address _____

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

- 4889 - TD Run 6% Gel between each plug SW @ 910'-950'
 - 4889 - 4740 Set Cement Plug
 - 3250 - 3150 Set Cement Plug
 - 2850 - 2750 Set Cement Plug
 - 2250 - 2150 Set Cement Plug
 - 1850 - 1750 Set Cement Plug
 - 1150 - 1050 Set Cement Plug Free Point 8 5/8", CUT & POOH. (~ 2000')
SET 100' CEMENT PLUG ACROSS THE CASING CUT.
 - 100 - 0 Set Cement Plug 832' - 682' SEPARATE SW ZONE FROM FRESH WATER ZONE.
- Install Monument with API Number

Free Point AN pull all casing
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Office of Oil and Gas
MAR 06 2017
WV Department of
Environmental Protection

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 3/1/17

701348P

FORM IV-35 (Obverse)

[08-78]

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

February 17, 1979

WELL OPERATOR'S REPORT 3

Operator's Well No. Dana S. Engel, et al. #2

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Permit No. 1348



FEB 21 1979

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal
LOCATION: Elevation: 1103.00 Watershed: Left Fork Steer Creek
District: Otter County: Quadrangle: Gassaway (7.5')

WELL OPERATOR Texas International Petroleum Corp. DESIGNATED AGENT James M. Blanton
Address Suite 300 - 3535 N.W. 58th Street Oklahoma City, Oklahoma 73112
Address Suite 740 - One Valley Square Charleston, West Virginia 25301

PERMITTED WORK: Drill X / Convert / Drill deeper / Reprint / Plug off old formation / Perforate new formation / Other physical change in well (specify)

PERMIT ISSUED ON August 18, 1978 OIL & GAS INSPECTOR FOR THIS WORK: Name Robert Bates Address Weston, West Virginia 26452

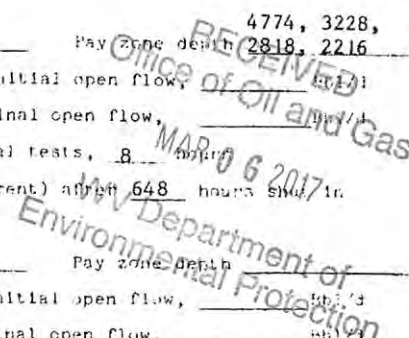
GEOLOGICAL TARGET FORMATION: Benson Depth 4530
Depth of completed well, 5440 feet Rotary X / Cable Tools
Water strata depth: Fresh, 40 feet; salt, 926 feet.
Coal seam depths: None reported. Is coal being mined in the area? No
Work was commenced August 22, 1978, and completed September 2, 1978.

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft, New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), and REMARKS. Rows include Conductor, Fresh water, Coal, Intermediate, Production, Tubing, and Liners.

OPEN FLOW DATA

Producing formation Benson, Balltown, Bayard, Squaw Pay zone depth 4774, 3228, 2818, 2216
Gas: Initial open flow, N/M Mcf/d Oil: Initial open flow,
Final open flow, 94 Mcf/d Final open flow,
Time of open flow between initial and final tests, .8 hours
Static rock pressure, 515 psig (surface measurement) after 648 hours
Second producing formation Pay zone depth
Gas: Initial open flow, Mcf/d Oil: Initial open flow,
Final open flow, Mcf/d Final open flow,
Time of open flow between initial and final tests, hours
Static rock pressure, psig (surface measurement) after hours



04/21/2017

B-2

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforated Benson @ 4777-4782 w/21 shots. Spotted 500 gallons 15% HCl. Loaded hole, broke Benson w/700 PSI. Fraced w/887 bbls. gelled water, 20,000# 80/100, 50,000# 20/40 sand. AIP - 1100 PSI, AIR - 30 BPM, ISIP - 400 PSI. Set frac plug @ 3323'. Perforated Balltown @ 3230-32, 55 shots; 3239-41, 5 shots; 3246-48, 5 shots; 3264-66, 5 shots; 3294-97, 7 shots. Spotted 500 gallons 15% HCl. Broke Balltown w/650 PSI. Balled out w/35 balls in 1000 gallons 15%. Knocked balls off w/bailer. Fraced w/805 bbls. gelled water, 20,000# 80/100 sand, 50,000# 20/40 sand. AIP - 750 PSI, AIR - 24 BPM, ISIP - 500 PSI. Set frac plug @ 2850'. Perforated Bayard @ 2819-27, 17 shots. Spotted 500 gallons 15% HCl. Broke Bayard w/900 PSI. fraced w/625 bbls. gelled water, 20,000# 80/100 and 50,000# 20/40 sand. AIR - 30 BPM, AIP - 1600 PSI, ISIP - 800 PSI. Perforated Squaw @ 2242-51, 19 shots; 2255-61, 13 shots. Set frac plug. Spotted 500 gallons 15% HCl. Broke Squaw w/1000 PSI. Fraced w/700 bbls. gelled water, 10,000# 80/100 and 60,000# 20/40 sand. AIP - 1250 PSI, AIR - 31 BPM, ISIP - 800 PSI.

WELL LOG

FORMATION	Color	Hard or Soft	3 Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Fill			0	5	2" Stream
Sand & Shale			5	40	
Sand - white			40	60	
Sand & Shale			60	90	
Sand - white			90	120	
Sand & Shale			120	130	
Red Rock			130	141	
Sand - white			141	150	
Red Rock			150	160	
Sand & Shale			160	184	
Red Rock			184	190	
Sand & Shale			190	235	
Red Rock			235	240	
Sand & Shale			240	384	
Sand			384	414	
Sand & Shale			414	474	
Sand			474	516	
Sand & Shael			516	539	
Sand			539	566	
Sand & Shale			566	585	
Sand			585	680	
Sand - white			680	735	
Sand & Shale			735	890	
Shale			890	904	
Sand & Shale			904	910	
Sand			910	950	1 1/2" Salt water @ 926.
Sand & Shale			950	1083	
Black Shale			1083	1086	
Sand			1086	1221	
Shale			1221	1259	
Sand			1259	1311	
Shale			1311	1332	
Sand & Shale			1332	1402	
Sand			1402	1472	
Sand & Shale			1472	1503	
Sand			1503	1518	
Sand & Shale			1518	1823	

(Attach separate sheets to complete as necessary)

Texas International Petroleum Corporation
Well Operator
By James M. Blanton
Its Division Manager

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NOTE: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

WV Department of Environmental Protection

B3

WELL LOG (Continued)

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FEB 21 1979

OIL & GAS DIVISION
DEPT. OF MINES

<u>Formation</u>	<u>Top Feet</u>	<u>Bottom Feet</u>
Sand	1823	1892
Sand & Shale	1892	1928
Little Lime	1928	1955
Shale	1955	1958
Sand	1958	1964
P. Cave	1964	1972
Big Lime	1972	2172
Injun	2172	2207
Shale	2207	2236
Sand	2236	2273
Sand & Shale	2273	2311
Shale	2311	2401
Sand & Shale	2401	2906
Sand	2906	2948
Shale & Sand	2948	3189
Sand	3189	3266
Sand & Shale	3266	3904
Shale	3904	4343
Sand & Shale	4343	5440

T.D.

Pg 2
47-001-1348

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Office of Oil and Gas

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WV Department of
Environmental Protection

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AUG 2 1978

OIL & GAS DIVISION
DEPT. OF MINES

OG-11

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

INSPECTOR'S WELL REPORT

Permit No. Brax-1348

Oil or Gas Well _____
(KIND)

Company Texas Intern Petroleum Corp.
 Address Charleston, W.V.
 Farm Dana S Engel
 Well No. Two
 District Otter County Braxton
 Drilling commenced 8-21-78
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of "ho" _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water 40 feet _____ feet
 Salt water 926' feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer
13			
10			Size of
8 1/4			
6 3/8			Depth set
5 3/16			
5			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED 8 5/8" SIZE 721' No. FT. 8-22-78 Date
 NAME OF SERVICE COMPANY Halliburton
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Groves, Altorman, McVicar

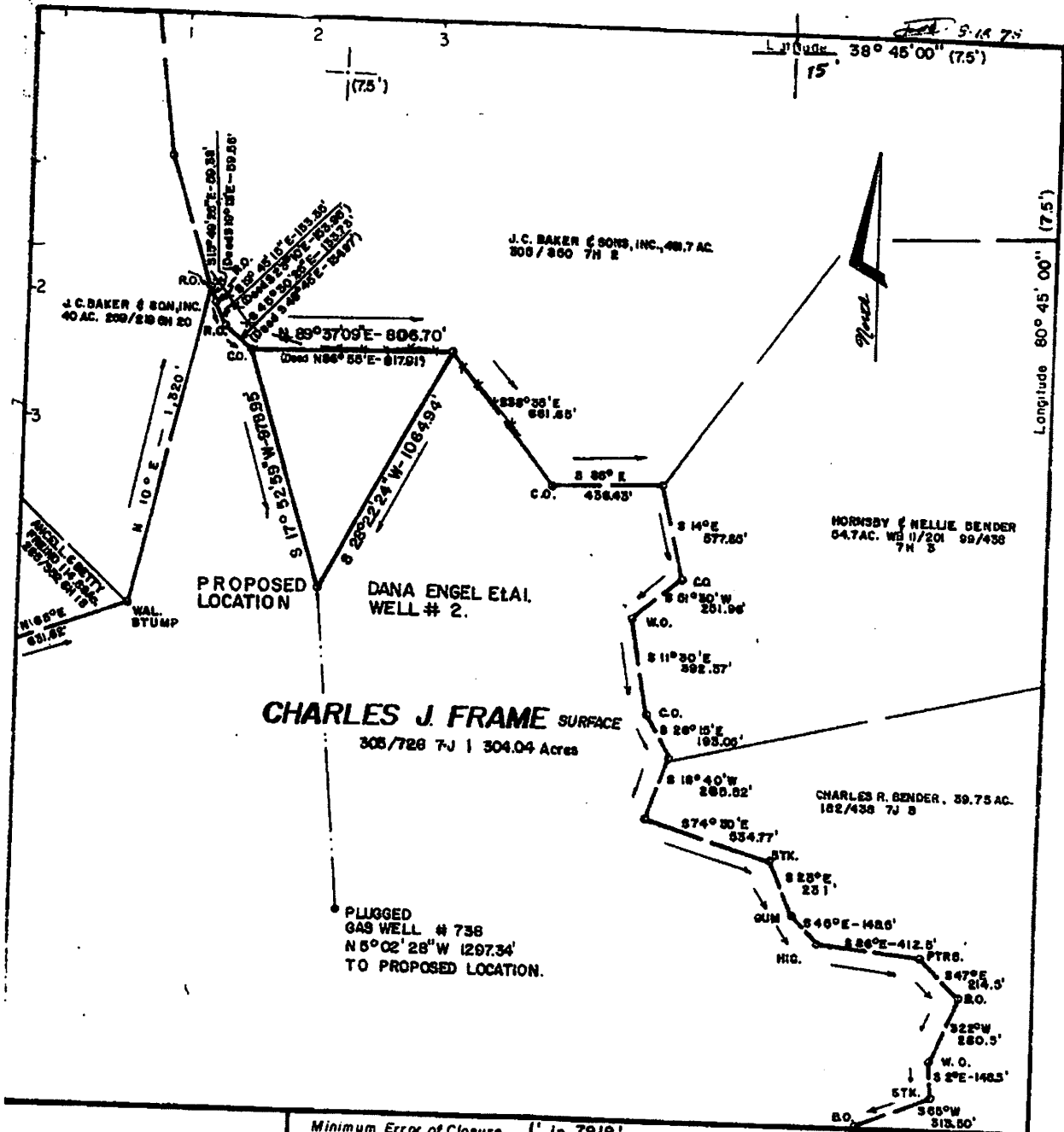
SW Jack: Rig #1

Remarks:

Depth 950'; will try to squeeze cement salt water zone. Halliburton;

9-24-78
DATE

Robert Bates 501
DISTRICT WELL INSPECTOR



New Location.....
 Drill Deeper.....
 Abandonment.....

Minimum Error of Closure 1" in 7919'
 Source of Elevation B. M. U.S. DEPT. of INTERIOR GEOLOGICAL SURVEY
 JEA 1963 ELE 1009.0.
 "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 laws regulating the oil and gas section of the mining laws of West Virginia."

TIPCO TEXAS INTERNATIONAL
PETROLEUM COMPANY
 COMPANY SUITE 740 VALLEY SQUARE
 ADDRESS CHARLESTON, WEST VIRGINIA
 FARM **DANA ENGEL ET AL.**
 TRACT 1 ACRES 304.04 LEASE NO. _____
 WELL (FARM) NO. 2 SERIAL NO. _____
 ELEVATION (SPIRIT LEVEL) 1103.0
 QUADRANGLE GASSAWAY (7.5')
 COUNTY BRAXTON DISTRICT OTTER
 ENGINEER Brackenrich & Skidmore, Inc. - J.D. Brackenrich, R.P.E.
 ENGINEER'S REGISTRATION NO. 3994
 FILE NO. _____ JOB NO. 391
 DATE 8-9-78 SCALE 1" = 500'

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

WELL LOCATION MAP
 FILE NO. **BRAXTON-1348**
 OFFICE OF OIL AND GAS

+ Denotes location of well on United States Topographic Maps, scale 1" to 62,500 latitude and longitude lines being represented by dotted lines as shown.
 - Denotes one inch spaces on border line of original tracing.

MAR 9 1979
 ENVIRONMENTAL DEPARTMENT OF
 47-007

5300' Dawson

WW-4A
Revised 6-07

1) Date: February 16, 2017
2) Operator's Well Number
Engel, Dana #2
3) API Well No.: 47 - 007 - 01348

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>Charles J. Frame Jr. &/or Mary L.</u>	Name <u>N/A</u>
Address <u>123 Ferry Road</u>	Address _____
<u>Fredericksburg, VA 22405</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Danny Mullind</u>	(c) Coal Lessee with Declaration
Address <u>220 Jack Acres Road</u>	Name <u>N/A</u>
<u>Buckhannon, WV 26201</u>	Address _____
Telephone <u>304-932-6844</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.

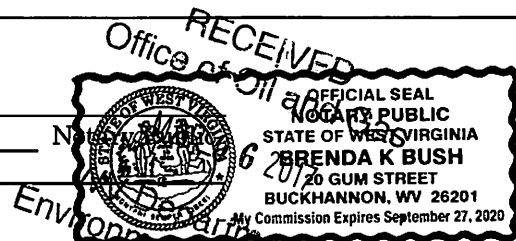
Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental 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 Ross & Wharton (Mike Ross Inc.)
 By: Mike Ross
 Its: President
 Address PO Box 219
Coalton, WV 26257
 Telephone 304-472-4289

Subscribed and sworn before me this 16th day of February, 2017

Brenda K Bush

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 depprivacyofficer@wv.gov.

701348P

Mike Ross Inc.

(304) 472-4289 (Office) Box 219 Coalton, WV 26257 (304) 472-7405 (Fax)

February 16, 2017

Charles &/or Mary Frame
123 Ferry Road
Fredericksburg, VA 22405

Re: Engel, Dana #2 Plugging Permit

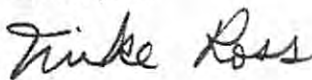
Dear Charles &/or Mary:

Mike Ross Inc. is in the process of applying for a permit to plug the above referenced well. Enclosed are copies of the Notice and Application for well plugging permits and the location plats.

Please note the instructions on the surface owner waiver. If you have no objection to the plugging being done, please sign the waiver and return it to our office.

If you have any questions, please do not hesitate to contact this office.

Thank you,



Mike Ross Inc.

7016 2140 0001 1545 5567

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee \$ 3.35	RECEIVED Office of Oil and Gas Postmark Here MAR 06 2017 Sent 3/2/17 WV Department of Environmental Protection
Extra Services & Fees (check box, add fee as appropriate)	
<input checked="" type="checkbox"/> Return Receipt (hardcopy) \$ 2.75	
<input type="checkbox"/> Return Receipt (electronic) \$	
<input type="checkbox"/> Certified Mail Restricted Delivery \$	
<input type="checkbox"/> Adult Signature Required \$	
<input type="checkbox"/> Adult Signature Restricted Delivery \$	
Postage \$ 0.88	
Total Postage and Fees \$ 6.98	
Charles &/or Mary Frame 123 Ferry Road Fredericksburg, VA 22405	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

04/21/2017

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 Ross & Wharton (Mike Ross Inc.) OP Code 305680

Watershed Left Fork Steer Creek Quadrangle Gassaway (7.5')

Elevation 1103 County Braxton District Otter

Description of anticipated Pit Waste: Plugging Fluid

Will a synthetic liner be used in the pit? yes

NO PIT STEEL TANKS
WILL BE USED. ANY WELL
EFFLUENT WILL BE DISPOSED
OF PROPERLY OFFSITE. gwm

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 _____)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- 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.

Company Official Signature Mike Ross

Company Official (Typed Name) Mike Ross

Company Official Title President

Subscribed and sworn before me this 16th day of February

Brenda K Bush

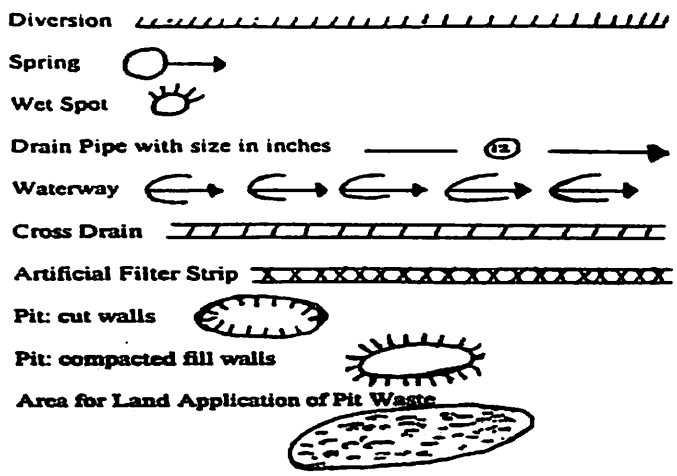
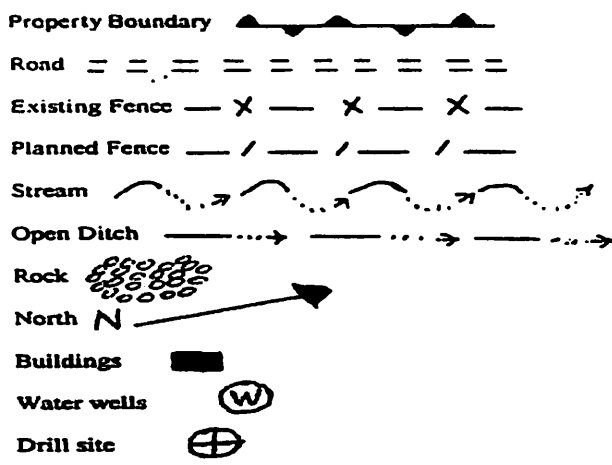
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Office of Oil and Gas
MAR 06 2017
17
Department of
Environmental Protection
Notary Public

My commission expires September 27, 2020



04/21/2017

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1 Acre Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 50% lbs/acre (500 lbs minimum)

Mulch _____ Tons/acre

Seed Mixtures

Seed Type	Area I	Area II
	lbs/acre	lbs/acre
Fescue		
Contractors Mix		

Attach:
 Drawing(s) of road, location, pit and proposed area for land application.
 Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____
 Comments: _____

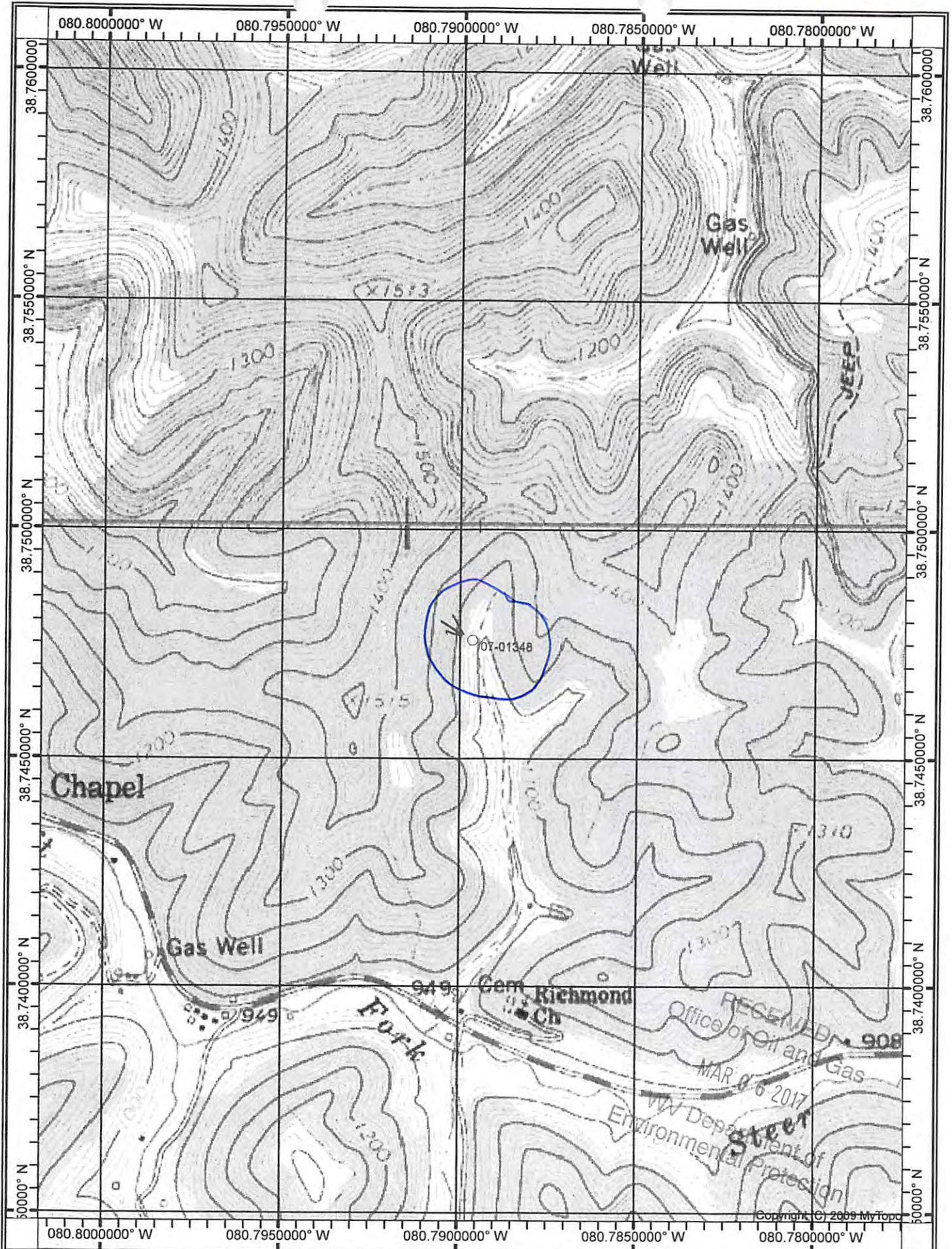
Title: President

Date: February 16, 2017

Field Reviewed? () Yes () No

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 Office of Oil and Gas
 MAR 06 2017
 WV Department of Environmental Protection

701348P



04/21/2017

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-007-01348 WELL NO.: 2

FARM NAME: Engel, Dana

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Braxton DISTRICT: Otter

QUADRANGLE: Gassaway (7.5')

SURFACE OWNER: Charles J. Frame Jr &/or Mary L.

ROYALTY OWNER: Charles J. Frame Jr &/or Mary L.

UTM GPS NORTHING: 4288791.6

UTM GPS EASTING: 518266.8 GPS ELEVATION: 1103

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

April 1, 2014

Date

04/21/2017