



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

April 28, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1501943, issued to TRIAD HUNTER, 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: J.B. CASTO #130
Farm Name: KING, JAMES SR.
API Well Number: 47-1501943
Permit Type: Plugging
Date Issued: 04/28/2014

Promoting a healthy environment.

05/02/2014

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 January 30, 20 14 1501943A
2) Operator's
Well No. J.B. Casto # 130
3) API Well No. 47-015 - 01943

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 ___ / Liquid injection X / Waste disposal ___ /
(If "Gas, Production X or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1106' GPS Watershed Grannys Creek
District Henry 03 County Clay 15 Quadrangle Newton S12

6) Well Operator Triad Hunter, LLC 7) Designated Agent Kim Arnold
Address 125 Putnam Street Address P.O. Box 154
Marietta, Ohio 45750 Waverly, W.V. 26184

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Ed Gainer Name N/A
Address P.O.Box 821 Address _____
Spencer, W.V. 25276

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

(SEE ATTACHED SHEET)

See changes!

6 1/2 gal gel between all plugs

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

Work order approved by inspector 

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Office of Oil and Gas
Date 2 FEB 20 2014

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Environmental Protection
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1501943P

(2014)

Plugging Procedure Attachment (Wells with 8 5/8" Casing)

Well Name : J.B. Casto # 130

Permit Number: 47-015-01943

District: Henry

County: Clay

MIIRU service rig and flowback tank; blow well down.

1. Pull tubing and rods OOH.
2. Check total depth with sandpump; clean out hole below bottom perforation.
3. Run 2 3/8" tubing below bottom perforation.
4. (Bottom Hole Plug) Mix/Pump 20 sacks Class A cement,(23.6 cu. ft.), ¼ lb.flocele/sk., no CaCl.
5. Displace cement through tubing with gel water.
6. Pull 2 3/8" tubing OOH.
7. RIH with casing cutter tool, check depth of 1st plug and find 4 ½" cement top (free pipe).
8. Cut-off 4 ½" casing just above the cement top, break circulation, and pull one jt. of casing OOH.
9. (Cut Plug) Mix/Pump 30 sacks Class A cement, (35.4 cu. ft.), ¼ lb. flocele/sk.,no CaCl.
10. Displace cement through casing with gel water.
11. Pull 4 ½" casing up to the subsea elevation depth.
12. (Elevation Plug) Mix/Pump 30 sacks of Class A cement,(35.4 cu. ft.), ¼ lb. flocele/sk., no CaCl. (1156' - 1056')
13. Displace cement through casing with gel water.
14. Pull 4 ½" casing to 100 feet below surface.
15. (Surface Plug) Mix/Pump 30 sacks of Class A cement,(35.4 cu. ft.), ¼ lb. flocele/sk., no CaCl.
16. Circulate cement to surface.
17. Pull remaining joints of 4 ½" casing OOH. Top load annulus with Class A cement to surface.
18. Weld a three foot monument pipe on to the existing casing. Fill monument pipe with cement and attach identification plate to monument pipe.
19. RDMO service rig and supporting equipment.
20. Reclaim well site and lease road.

ELEV. 1106'



Set 100 ft plug bottom of surface pipe 250-150 8 5/8" CASING SPOT PLUG

Plug Summary

(Plug Name)	(Thickness)	(Cement Type)	(Sacks)	(Cubic Feet)
1. Bottom Hole	250 ft.	Class A	20	23.6
2. Cut Plug	100 ft.	Class A	30	35.4
3. Elevation Plug	100 ft.	Class A	30	35.4
4. Surface Plug	100 ft.	Class A	30	35.4
5. Totals:			110 sacks	129.8 cu. ft.

SQUAW 2004-2025

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CG-10
Rev. - 9-71



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Quadrangle Newton 7.5'
Permit No. 47-015-1943-Li

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb. _____
Water Flood Storage _____
Disposal _____ (Kind) _____

Company <u>Pennzoil Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 1588, Parkersburg, WV 26102</u>	Size			
Farm <u>J. B. Casto</u> Acres <u>260</u>	20-16			
Location (waters) <u>Grannys Creek</u>	Cond.			
Well No. <u>130</u> Elev. <u>1013.76</u>	13-10"			
District <u>Henry</u> County <u>Clay</u>	9 5/8			
The surface of tract is owned in fee by <u>Ray E. King</u>	8 5/8	231	231	130 sks.
Address <u>Ovapa, WV</u>	7			
Mineral rights are owned by <u>Kanawha Banking & Trust</u>	5 1/2			
Agt for <u>Roane Ld.</u> Address <u>P.O. Box 393, Charleston, WV</u>	4 1/2	2045	2045	75 sks.
Drilling Commenced <u>7-3-81</u>	3			
Drilling Completed <u>7-9-81</u>	2			
Initial open flow <u>W.I.W.</u> cu. ft. _____ bbls.	Liners Used			
Final production _____ cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Well treatment details:
Water Injection Well

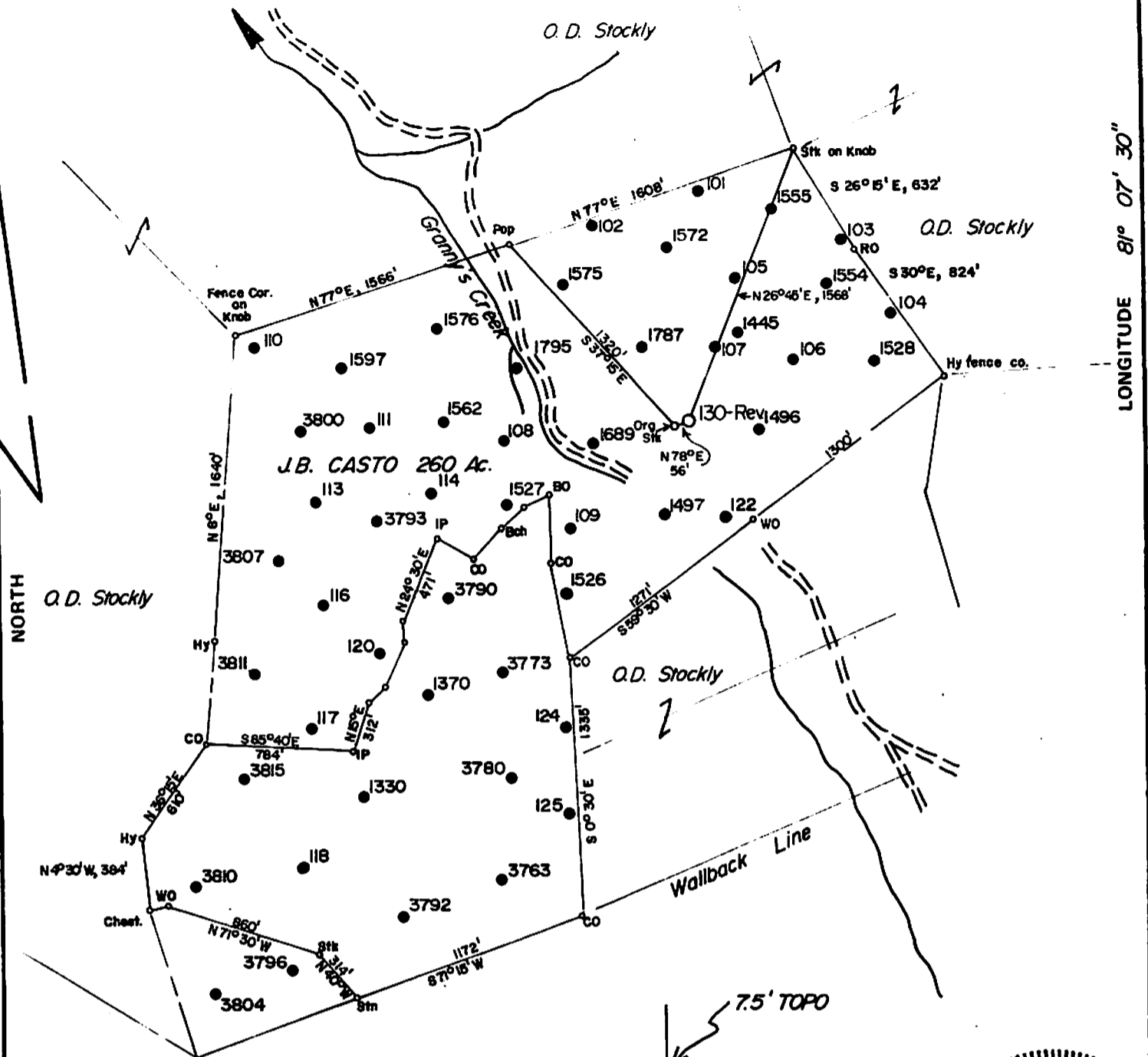
Attach copy of cementing record.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Squaw Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand & Shale			0	400		
Sand			400	587		
Shale			587	606		
Sand & Shale			606	1760		
Little Lime			1760	1804		
Blue Monday			1804	1828		
Big Lime			1828	1938		
Big Injun			1938	1977		
Shale			1977	2004		
Squaw			2004	2025		
Shale			2025	2045		
Total Depth				2045		

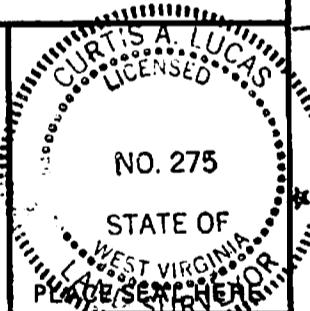
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PETROLEUM DEPARTMENT
1501943P



FILE NO. 1626
 MAP 83 SQS S 62 W 31
 SCALE 1" = 800'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION J.B. Casto 1699, Elev. 1035.76'

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) Curtis A. Lucas
 CURTIS A. LUCAS LLS 275



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



DATE May 28 19 81
 FARM J.B. Casto NO. 130-Rev.
 API WELL NO. 47
 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 1026.46' WATER SHED Granny's Creek
 DISTRICT Henry COUNTY Clay
 QUADRANGLE Newton 7.5'
 SURFACE OWNER Ray E. King ACREAGE ___
 OIL & GAS ROYALTY OWNER Kanawha Banking & Trust LEASE ACREAGE 260
 LEASE NO. 46485-up
 PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Revised Location

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PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Big Injun ESTIMATED DEPTH 2031'
 WELL OPERATOR PENNZOIL COMPANY DESIGNATED AGENT JAMES A. CREWS
 ADDRESS P. O. BOX 1588 ADDRESS P. O. BOX 1588
PARKERSBURG, W. V. 26101 PARKERSBURG, W. V. 26101

WV Department of Environmental Protection



Basin Surveys, Inc.

COMPENSATED DENSITY LOG

FILED
 PETROLEUM DIVISION
 FEB 20 1981
 47-015-1943
 Copy
 12

FILING NO. _____
 COMPANY Pennzoil Company
 WELL J. B. Castle #130
 FIELD Henry
 COUNTY Clay STATE W. Va.
 LOCATION: (water sheet) Grannys Creek
 OTHER SERVICES: _____
 SEC. _____ TWP. _____ RGE. _____

Permanent Datum: Ground Level; Elev.: 1026
 Log Measured From K.B., 10 Ft. Above Perm. Datum
 Drilling Measured From K.B.
 Elev.: K.B. 1036
 D.F. 1035
 G.L. 1026

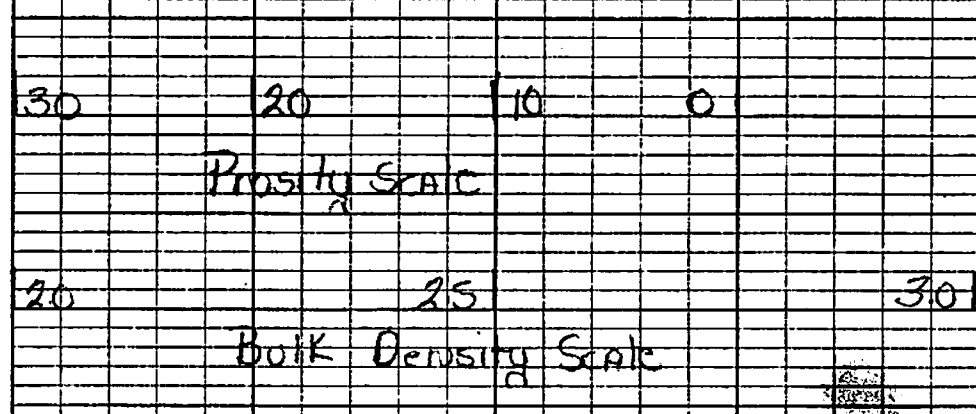
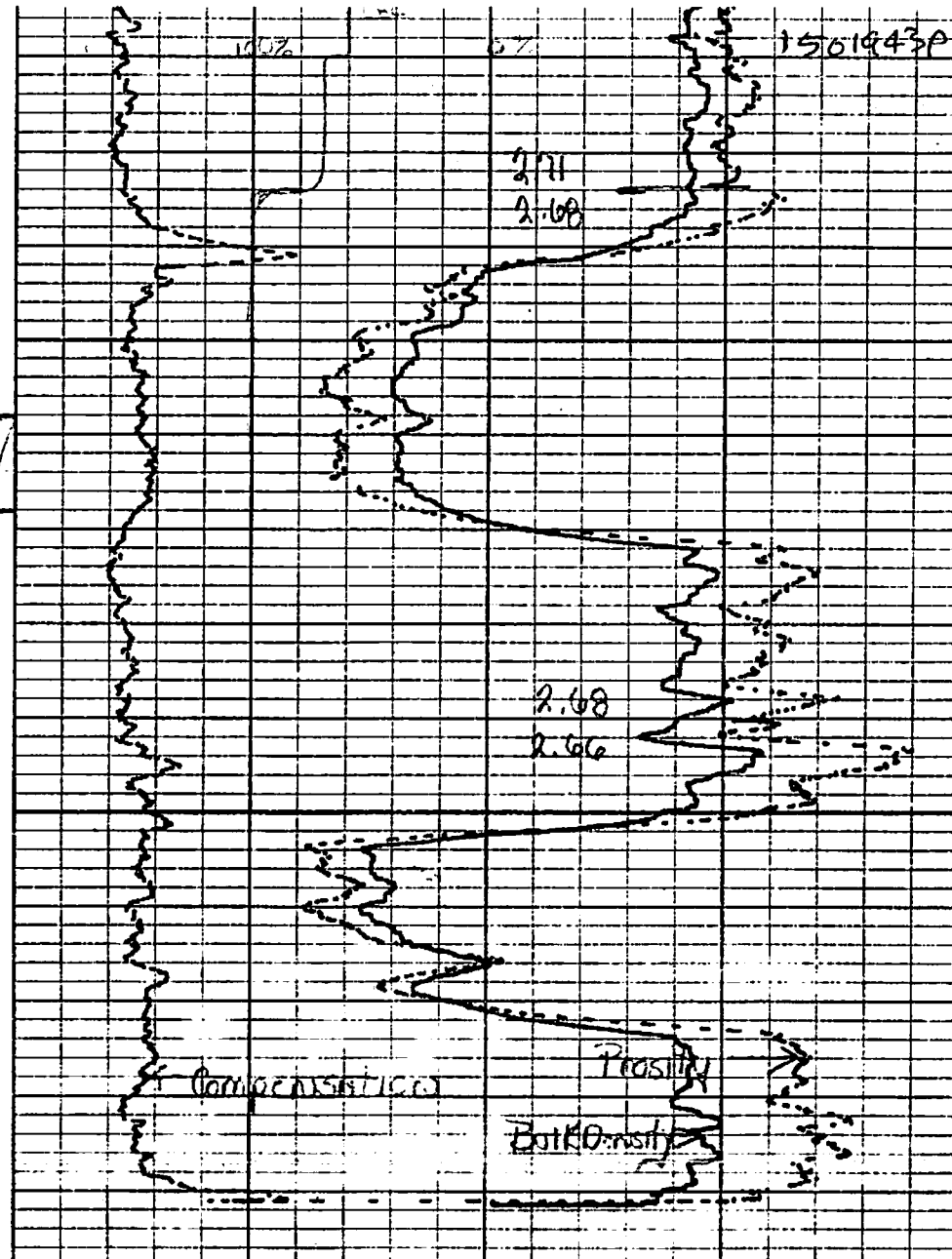
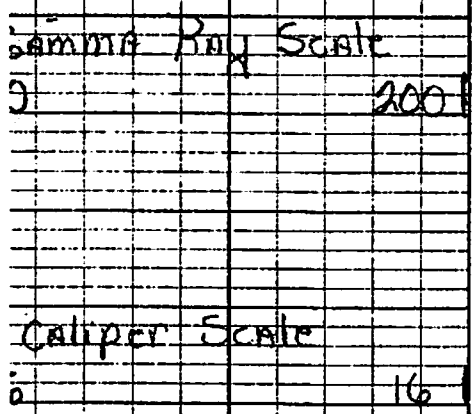
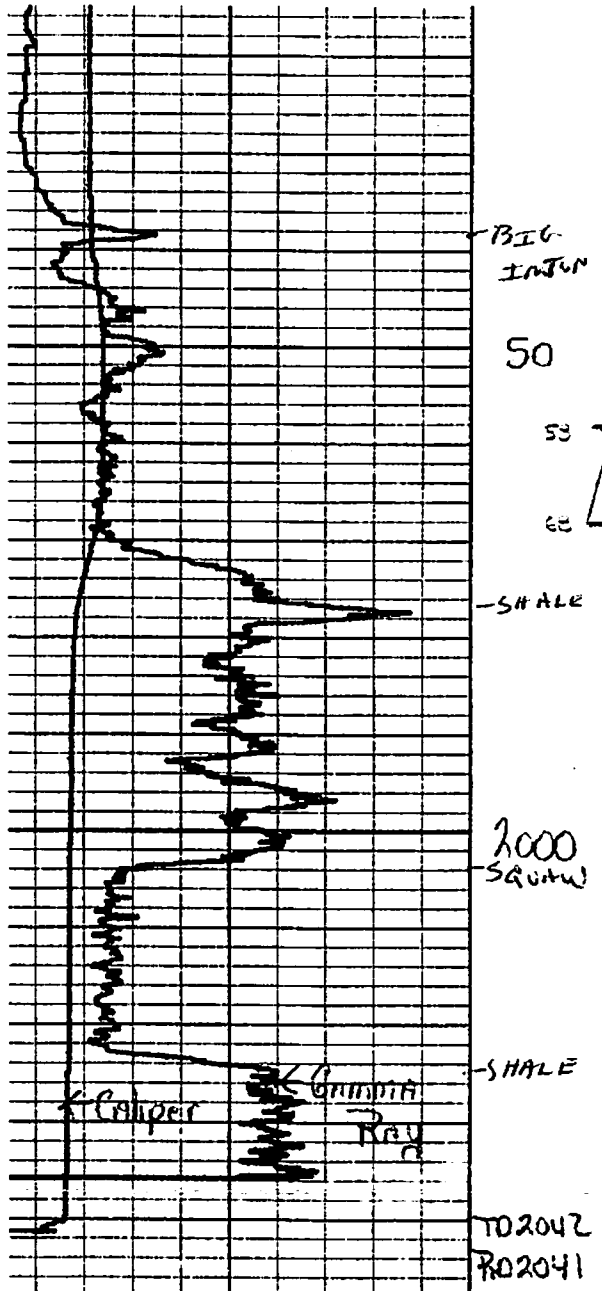
Date	<u>7/9/81</u>	<u>7/9/81</u>	<u>7/9/81</u>
Run No.	<u>one</u>	<u>one</u>	<u>one</u>
Type Log	<u>Gamma Ray</u>	<u>FDC</u>	<u>Caliper</u>
Depth—Driller	<u>2045</u>	<u>2045</u>	<u>2045</u>
Depth—Logger	<u>2042</u>	<u>2042</u>	<u>2042</u>
Bottom logged interval	<u>2035</u>	<u>2041</u>	<u>2041</u>
Top logged interval	<u>0</u>	<u>550</u>	<u>550</u>
Type fluid in hole	<u>Drill Fluid</u>		
Salinity, PPM Cl.			
Density			
Level	<u>Full</u>		
Max rec. temp., deg F.			
Operating rig time			
Recorded by	<u>Ron Miles</u>		
Witnessed by	<u>Mr. Holdman</u>		

Run No.	Bit	Bore-Hole Record		Size	Wgt.	Casing Record	
		From	To			From	To
<u>one</u>	<u>77/8</u>	<u>0</u>	<u>2042</u>	<u>85/8</u>		<u>0</u>	<u>232</u>

THIS HEADING AND LOG CONFORMS TO API RP 33

HOLD HERE

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 Office of Damages
 FEB 20 2014
 WV Department of
 Environmental Protection
 05/02/2014



WW-4A
Revised 6-07

1) Date: January 30, 2014
2) Operator's Well Number
J.B. Casto # 130

3) API Well No.: 47 - 015 - 01943

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>James King Sr.</u>	Name <u>N/A</u>
Address <u>4192 Ovapa Road</u>	Address _____
<u>Ovapa, W.V. 25164</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Ed Gainer</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 821</u>	Name <u>N/A</u>
<u>Spencer, W.V. 25276</u>	Address _____
Telephone <u>(304) 389-7582</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 Triad Hunter, LLC
 By: Rocky Roberts
 Its: Senior V.P. Appalachian Operations
 Address 125 Putnam Street
Marietta, Ohio 45750
 Telephone (740) 374-2940

Subscribed and sworn before me this 30th day of January, 2014
Elizabeth K. Stuby Notary Public
 My Commission Expires 2-29-16

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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.

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Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

To: James King Sr.
 4192 Ovapa Rd
 Ovapa, WV 25164

Postmark Here: FEB 14 2014

5

Instructions

J. B. Casto # 105 47-015-1176
 " # 106 47-015-1177
 " # 123 47-015-1655
 " # 130 47-015-1943
 " # 134 47-015-2255

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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 Triad Hunter, LLC OP Code _____

Watershed Grannys Creek Quadrangle Newton

Elevation 1106' GPS County Clay District Henry

Description of anticipated Pit Waste: No Pit; fluids will be separated at Ovapa Facility; oil stored and salt water re-injected.

Will a synthetic liner be used in the pit? * No Pit *

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 Swabbing
- Workover Plugging
- Other (Explain _____)

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 *Rocky Roberts*

Company Official (Typed Name) Rocky Roberts

Company Official Title Senior V.P. Appalachian Operations

Subscribed and sworn before me this 30th day of January, 2014

Elizabeth R. Teby Notary Public

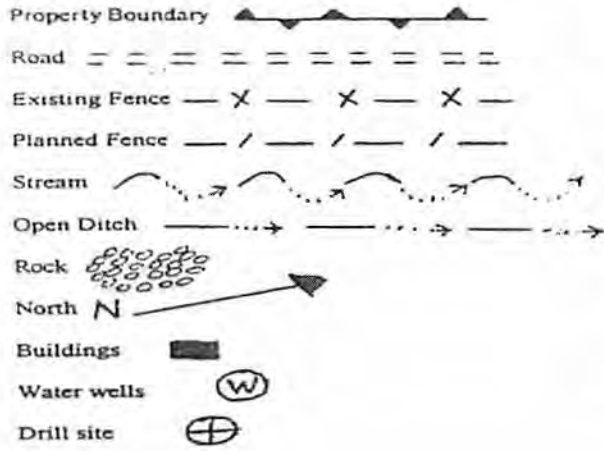
My commission expires 2-29-16

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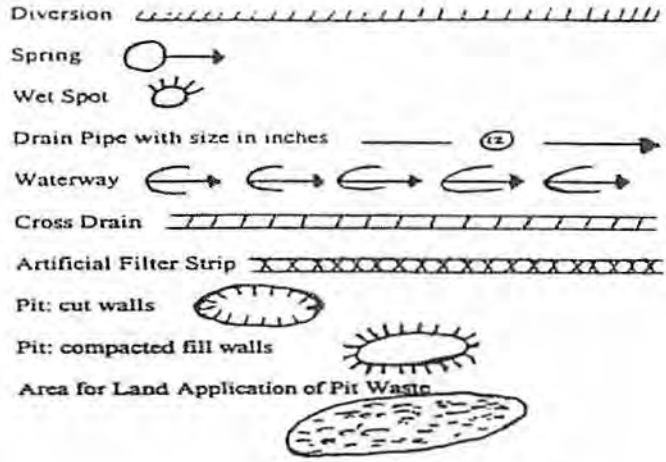
1501943P

Form WW-9

Operator's Well No. J.B. Casto # 130



LEGEND



Proposed Revegetation Treatment: Acres Disturbed One (1) Prevegetation pH 5.5

Lime Two (2) Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 600 lbs/acre (500 lbs minimum)

Mulch 90 - 100 bales/acre Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Orchard Grass		30%			
Rye (Annual & BT)		35%			
Timothy (Climax)		25%			
Clover Med. Red)		10%			

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]
Comments: _____

Title: Inspector

Date: 2/4/14

Field Reviewed? () Yes (X) No

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05/02/2014

1501943P



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 www.delorme.com



Scale 1 : 31,250
 0 200 400 600 800 1000
 1" = 2,602 Feet
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 FEB 20 2014
 ENVIRONMENTAL Protection
 Data Zoom 12-6

15 01943 P

WW-7
8-30-06



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

API: 47-015-01943 WELL NO.: 130

FARM NAME: J.B. Casto

RESPONSIBLE PARTY NAME: Triad Hunter, LLC

COUNTY: Clay DISTRICT: Henry

QUADRANGLE: Newton

SURFACE OWNER: James King Sr.

ROYALTY OWNER: Kanawha Banking and Trust Co. et al

UTM GPS NORTHING: 4265929

UTM GPS EASTING: 0487103 GPS ELEVATION: 1106'

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- 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.

Ben Smethers
Signature

Geologist
Title

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1/16/14
FEB 20 2014
Date

WV Department of Environmental Protection
05/02/2014

1501943 P



Chuck Taylor
Toolbox

Geographic/UTM Coordinate Converter

You can convert between geographic coordinates and Universal Transverse Mercator (UTM) coordinates using this form.

Note: This is a JavaScript-powered form. If you have difficulties using this form, check your browser's settings to make sure you have enabled JavaScript.

Programmers: The JavaScript source code in this document may be copied and reused without restriction.

If you have a Java 1.1-compliant browser, and especially if you need to use an ellipsoid model other than WGS84, you may want to try the [Coordinate and Datum Transformations tool](#).

Geographic (degrees decimal)	To/From	UTM
lon <input type="text" value="-81.147990272839"/>	<input type="button" value=">>"/>	x (easting) <input type="text" value="0487103"/>
lat <input type="text" value="38.541682713554"/>	<input type="button" value="<<"/>	y (northing) <input type="text" value="4265929"/>
		zone <input type="text" value="17"/>
		hemisphere <input checked="" type="radio"/> N <input type="radio"/> S

J.B. Castro #130

Geographic coordinates are entered and displayed in decimal degrees. Negative numbers indicate West longitudes and South latitudes. UTM coordinates are entered and displayed in meters. The ellipsoid model used for computations is WGS84.

Chuck Taylor -- ([Copyright](#)) -- ([Contact](#))

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