



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 30, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5900341, issued to CHESAPEAKE APPALACHIA, L.L.C., 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: 80815 (8015)
Farm Name: COTIGA DEV CO.
API Well Number: 47-5900341
Permit Type: Plugging
Date Issued: 04/30/2014

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

808015 P&A PROCEDURE

NOTE: 7" casing is nearly split apart and crushed by mine subsidence at 132'.

- 1) Prepare road and location, run slick line or camera to be sure we can get at least 2.25" down hole.
- 2) MIRU Service Rig, run tools to check top of bridge or fill at approximately 2450'
- 3) Run W.S. to just above top of fill at approximately 2400', load hole with gel
- 4) Spot 100' cement plug 2400'-2300', pull W.S. to 2070'
- 5) Spot 200' cement plug 2070'-1870', pull W.S.
- 6) Run in hole with tools (if possible) to check TOC (If top of plug is not above 1900' then re-set plug)
- 7) Perforate 7" at approximately 1190', 1100', 330', 280', 200' and 170' ✓
- 8) Run W.S. to 1200', load hole with gel
- 9) Spot 150' cement plug 1200'-1050', pull W.S. to 340' ABOVE SALT WATER
- 10) Spot 100' cement plug 340'-240', pull W.S. ABOVE FRESH WATER & BELOW COM
- 11) Attempt to pull 7" casing, should come apart at 132', if not rip at 118' and pull
- 12) Run W.S. to 200', load hole with gel
- 13) Spot 70' cement plug 200'-130', pull W.S.
- 14) Rip 8 5/8" at free-point (approximately 100') and pull
- 15) Run W.S. to 130'
- 16) Spot 130' cement plug 130' surface
- 17) Pull W.S. and top off with cement
- 18) Erect monument and reclaim as prescribed by law



REC'D
Office of
APR 2014
05/02/2014
Earth & Environmental



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

59 00341P

B-1

Holden

WELL RECORD

Permit No. MIN-341 Oil or Gas Well Gas (KIND)

Company UNITED FUEL GAS COMPANY
Address P. O. Box 1273, Charleston 25, W.Va.
Farm Cotiga Dev. Co. #12 Acres 3525.75
Location (waters) Marrowbone Creek
Well No. 8015 Elev. 1282.68
District Kermit County Mingo
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by Cotiga Dev. Co.
Address Philadelphia, Pa.
Drilling commenced 8-27-52
Drilling completed 11-26-52
Date Shot 11-28-52 From 2732 To 3646
With 6,066-2/3# DuPont Gelatin
Open Flow 12 /10ths Water in _____ Inch
2 /10ths Merc. in _____ Inch
Volume 539,000 Cu. Ft.
Rock Pressure 370# lbs. 48 hrs.
Oil _____ bbls., let 24 hrs.
Fresh water 290 feet
Salt water 1300' feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
18			
10		20'	Size of
8"		356'	
7"		1920'	Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT 120 FEET 36 INCHES
167 FEET 36 INCHES FEET INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil Gas or Water	Depth Found	Remarks
Surface			0	20	Water 290'		
Sand			20	120			
Coal			120	123	Hole fill water 1300'		
Slate			123	167			
Coal			167	170	Show gas 2655'		
Sand			170	300			
Slate			300	325	Show gas 2775'		
Sand			325	385			
Slate			385	395	Show gas 3355'		
Sand			395	635			
Slate			635	900	Test before shot 11/10 W 2" 140 M		
Sand			900	982	Shot 11-28-52 with 6,066-2/3# DuPont		
Slate			982	1100	Gelatin from 2732-3646'		
Sand			1100	1165	Test 1 hour after shot 32/10 Merc. 2"		
Slate			1165	1170	880 M		
Salt Sand			1170	1400	Test 14 hours after shot 12/10 Merc.		
Sand			1400	1505	2" 539 M		
Slate			1505	1510	50' cavings		
Sand			1510	1585	FINAL OPEN FLOW - 539 M - Br. Shale		
Slate			1585	1605	48 Hr. R.P. 370#		
Sand			1605	1766			
Slate			1766	1825	Shut in 11-29-52 in 7" casing		
Red Rock			1825	1827			
Slate			1827	1860			
Little Lime			1860	1908			
Pencil Cave			1908	1910			
Big Lime			1910	2065	1910' DLM - 1920' Depthometer		
Injun Sand			2065	2125			
Slate & Shells			2125	2640			
Coffee Shale			2640	2665			
Berea Grit			2665	2730			
Brown Shale			2730	2800			
White Shale			2800	3345			
Brown Shale			3345	3636			
Slate			3636	3646			
Total depth			3646'				



(Over)

05/02/2014

RECEIVED
Oil and Gas
JAN 16 2014
WV Department of
Environment

Mingo-341

FORM 0157-0 0-0

November 28, 1952

Mr. J. E. Husey, Div. Supt.

Well No. 8015 (Serial No.) on Cotiga Development #12 Farm

Was shot this date with 6066-2/3# Dupont Gelatin quarts

Number of Shells 91

Length of Shells 4-1/4" x 10'6"

Top of Shot 2732'

Bottom of Shot 3646'

Top of Brown Shale Sand 2730' feet
(Name of Sand)

Bottom of Slate Sand 3646' feet
(Name of Sand)

Total Depth of Well 3646'

Results: 1/4 Hrs after Shot 12/10 M-2" - 539 M

Remarks: _____

Signed W. H. Chapman District Supt.

NOTE-When a well is shot this form must be filled out and sent to the General Superintendent.

UNITED FUEL GAS COMPANY
COMPANY

SERIAL WELL NO. 8015 LEASE NO. 42832 MAP SQUARE 28-25

RECORD OF WELL NO. <u>8015</u> on the		CASING AND TUBING				TEST BEFORE SHOT
<u>Cotiga Dev. #12</u>	<u>3525.75</u> Acres farm of	SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	<u>11</u> /10 of Water in... <u>2"</u> inch
in <u>Kermit</u>	District	<u>10-3/4"</u>	<u>32.75#</u>	<u>20</u>	<u>20</u>	/10 of Merc. in... inch
<u>Mingo</u>	County	<u>8-5/8"</u>	<u>24.00#</u>	<u>357</u>	<u>357</u>	Volume... <u>140</u> MCF Cu. ft.
State of: <u>West Virginia</u>		<u>7"</u>	<u>20.00#</u>	<u>1940</u>	<u>1940</u>	TEST AFTER SHOT
Field: <u>Branchland</u>						/10 of Water in... inch
Rig Commenced	<u>By Contractor</u> 19					<u>12</u> /10 of Merc. in... <u>2"</u> inch
Rig Completed	<u>By Contractor</u> 19					Volume... <u>539</u> MCF Cu. ft.
Drilling Commenced	<u>Aug. 27,</u> 19 <u>52</u>					<u>11</u> Hours After Shot
Drilling Completed	<u>Nov. 26,</u> 19 <u>52</u>					Rock Pressure... <u>370#</u>
Drilling to cost	per foot					Date Shot <u>11-28-52</u>
Contractor is: <u>E. C. Ware</u>						Size of Torpedo <u>6666-2/3#</u> Gal.
Address: <u>Beauty, Ky.</u>		SHUT IN				Oil Flowed... bbls. 1st 24 hrs.
		Date: <u>11-29-52</u>				Oil Pumped... bbls. 1st 24 hrs.
Driller's Name	<u>McClelland Horn</u>	<u>7"</u> in. Casing	Tubing or Casing			
	<u>Luther Mills</u>	Size of Packer <u>7"X8-5/8"X10"</u>				Well abandoned and
		Kind of Packer <u>Bottom Hole</u>				Plugged... 19
		1st Perf. Set... from				
Elevation:	<u>1282.68</u>	2nd Perf. Set... from				

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Surface	0	20	20	
Sand	20	120	100	
Coal	120	123	3	
Slate	123	167	44	
Coal	167	170	3	
Sand	170	300	130	Water at 290'
Slate	300	325	25	
Sand	325	385	60	
Slate	385	395	10	
Sand	395	635	240	
Slate	635	900	265	
Sand	900	982	82	
Slate	982	1100	118	
Sand	1100	1165	65	
Slate	1165	1170	5	
Salt Sand	1170	1400	230	Hole full Water 1300'
Sand	1400	1505	105	

APPROVED
W. H. Chapman

590031P CK 5139975
10000

1) Date: 3/25/2014
2) Operator's Well Number 808015

3) API Well No.: 47 - 059 - 00341

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>Cotiga Development Company</u>	Name <u>Consol of KY, Inc.</u>
Address <u>P. O. Box 1956</u>	Address <u>P. O. Box 76</u>
<u>Williamson, WV 25661</u>	<u>Naugatuck, WV 25685</u>
	(b) Coal Owner with Declaration
	Name <u>Cotiga Development Company</u>
	Address <u>P. O. Box 1956</u>
	<u>Williamson, WV 25661</u>
(b) Name _____	(c) Coal Lessee <u>With Declaration</u>
Address _____	Name <u>Consol of KY, Inc.</u>
	Address <u>P. O. Box 76</u>
	<u>Naugatuck, WV 25685</u>
6) Inspector <u>Jeremy James</u>	Coal Lessee with Declaration
Address <u>P. O. Box 147</u>	Name _____
<u>Ona, WV 25545</u>	Address _____
Telephone <u>(304) 951-2596</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 Chesapeake Appalachia, L.L.C.
 By: David Stumbo
 Its: Production Superintendent- Devonian, Eastern Div.
 Address P. O. Box 18496
Oklahoma City, OK 73154-0496
 Telephone (606) 298-3400

RECEIVED
Office of Oil and Gas
MAR 27 2014

Subscribed and sworn before me this 25th day of March
Sherrin Moore Notary Public

My Commission Expires 5/24/2017

WV Department of
Environmental Protection

05/02/2014

7011 0470 0002 7116 9314

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Restricted Delivery Fee (Endorsement Required)	
Total Postage	

Sent To: Consol of KY, Inc.
P. O. Box 76
Naugatuck, WV 25685
(P&A Notification Well 808015) ✓

Street, Apt. N or PO Box No.
City, State, Zi

PS Form 3800, August 2006 See Reverse for Instructions

7011 0470 0002 7116 9291

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Restricted Delivery Fee (Endorsement)	
Total Postage	

Sent To: Cotiga Development Co.
P. O. Box 1956
Williamson, WV 25661
(P&A Notification Well 808015) ✓

Street, Apt. N or PO Box No.
City, State, Zi

PS Form 3800, August 2006 See Reverse for Instructions

SURFACE OWNER WAIVER

Operator's Well Number 808015

API

47-059-00341

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.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a 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,

 Date 4/3/14
Signature

Name CONSOL OF KENTUCKY, INC.
By RECEIVED JACK RICHARDSON
Office of Oil and Gas VICED PRESIDENT Date 4/3/14

Signature Date

WV Department of
Environmental Protection

05/02/2014

WW-4B
Reverse

API No. 47-059-00341

Farm Name Cotiga Development Co

Well No. 808015

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

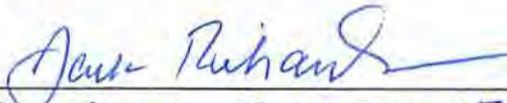
This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator X / owner / lessee X / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: 4/3/14

x 
By: CONSUL OF KENTUCKY - JACK RICHARDSON
Its VICE-PRESIDENT

RECEIVED
Office of Oil and Gas
APR 04 2014
WV Department of
Environmental Protection

05/02/2014

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 Chesapeake Appalachia, L.L.C. OP Code 494477557

Watershed Lick BR of Marrowbone Creek Quadrangle Trace, WV 7.5'

Elevation 1282' County Mingo District Kermit

Description of anticipated Pit Waste: Plugging returns

Will a synthetic liner be used in the pit? Yes

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 December 31, 1999, 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.

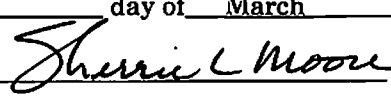
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is 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 

Company Official (Typed Name) David Stumbo

Company Official Title Production Superintendent, Appalachian South BU, Northern Division

Subscribed and sworn before me this 25th day of March 20 14

 Notary Public Office of Oil and Gas

My commission expires 5/24/2017

RECEIVED
MAR 27 2014
WV Department of
Environmental Protection
05/02/2014

LEGEND

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- 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 1/8 Prevegetation pH _____

Lime _____ Tons/acre or to correct to pH _____

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

Mulch 250 lb _____ Tons/acre

Seed Mixtures

Seed Type	Area I		Seed Type	Area II	
		lbs/acre			lbs/acre
Cereal Rye		17.5 / 1/8			

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

Photocopied section of involved 7.5' topographic sheet.

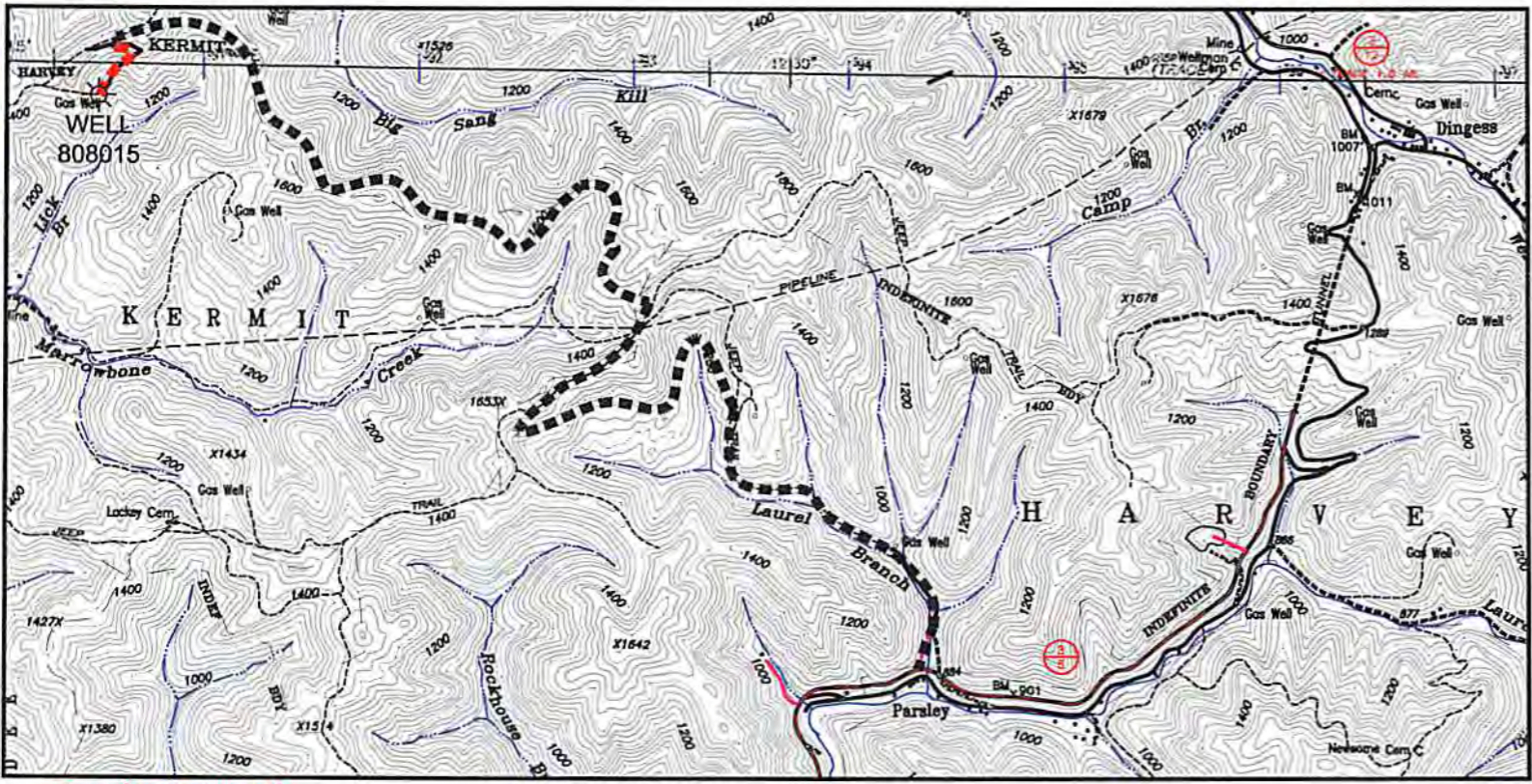
Plan Approved by:

Title: inspector 006 Date: 4-9-14

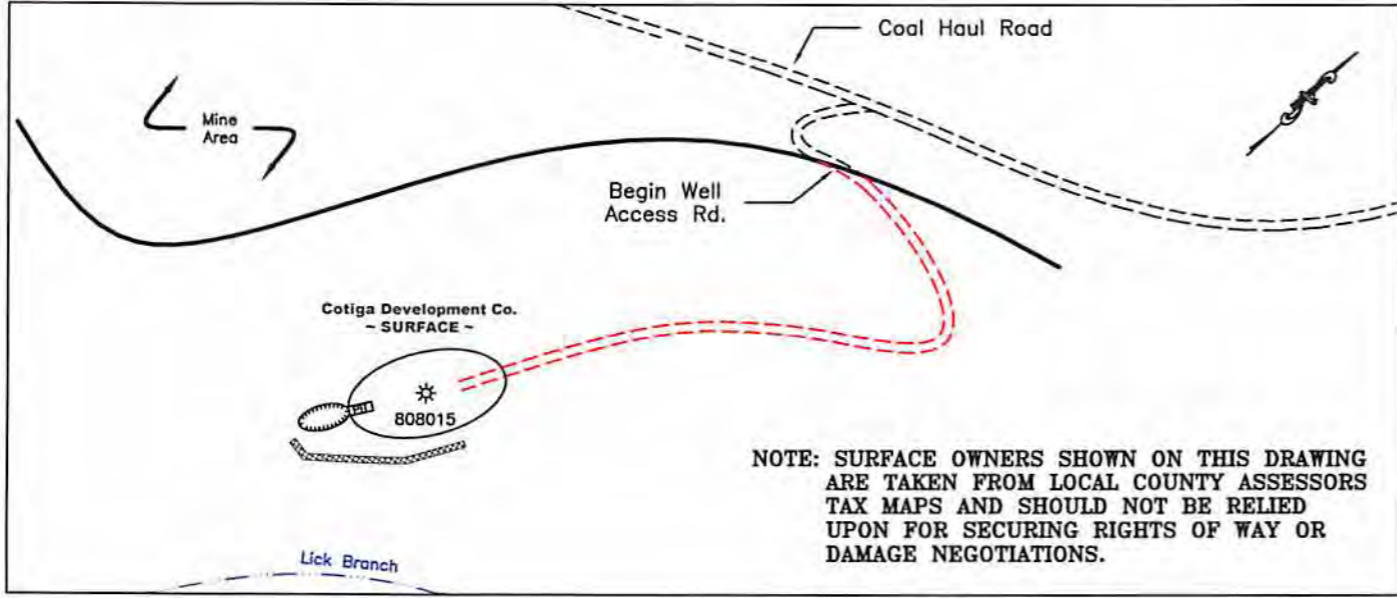
Field Reviewed? Yes No

RECEIVED
Office of Support Gas
APR 18 2014
Washington State
Environmental Protection Section

5900 ZIP



Trace/Myrtle WV 7.5' ACCESS ROAD DETAIL



NOTE: SURFACE OWNERS SHOWN ON THIS DRAWING ARE TAKEN FROM LOCAL COUNTY ASSESSORS TAX MAPS AND SHOULD NOT BE RELIED UPON FOR SECURING RIGHTS OF WAY OR DAMAGE NEGOTIATIONS.

RECEIVED
 Office of Oil and Gas
 MAR 27 2014
 WV Department of Environmental Protection

Drawing Legend

Property Boundary		Diversion	
Road (808015)		Spring	
Existing Fence		Wet Spot	
Planned Fence		Existing Drain Pipe with size in inches	
Stream		Waterway	
Open Ditch		Cross Drain	
Rock		Artificial Filter Strip	
North		Pit: cut walls	
Buildings		Pit: Compacted fill walls	
Water Wells		Areas for Land Application of Pit Waste	
Drill Site		Temporary berm	
Road (Existing)		Brush Barrier	
		Straw Bales	

General Notes

THIS DRAWING IS A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS WELL SITE, DRILLING PIT, ROADWAYS, CULVERTS, SEDIMENT BARRIERS ETC. ARE SHOWN IN APPROXIMATE PRE-PLANNING CONFIGURATIONS.

TREES AND SLASH WILL BE CLEARED AS NECESSARY BEFORE ANY PROPOSED ROAD, SITE, OR PIPELINE CONSTRUCTION BEGINS. IF SUFFICIENT RESIDUE MATERIALS ARE AVAILABLE FROM CLEARING, THIS MATERIAL WILL BE WINDROWED BELOW THE ANTICIPATED FILL OUTSLOPE(S) TO INTERCEPT AND RETAIN SEDIMENT FROM DISTURBED AREAS. ALL MARKETABLE TIMBER WILL BE CUT AND STACKED IN AREAS ADJACENT TO OPERATIONS.

ALL CULVERT PIPES WILL BE A MINIMUM OF 12" IN DIAMETER. ALL CULVERT PIPES INSTALLED WILL BE ACCOMPANIED BY AN ENTRANCE SUMP WITH DIMENSIONS NO LESS THAN 3 FT. (WIDTH) X 3 FT. (LENGTH) X 4 FT. (DEEP). CULVERTS WILL BE INSTALLED AT AN ANGLE TO ENSURE PROPER FLOW. THE OUT FALL OF CULVERTS WILL BE PROTECTED FROM EROSION AND SEDIMENTATION USING LARGE ROCKS OR OTHER SEDIMENT CONTROLS DEEMED NECESSARY IN THE PREVENTION OF EROSION AND SEDIMENTATION. STORM WATER FROM THE DITCHES TO THE CULVERTS WILL BE DIRECTED TO STABLE NATURAL VEGETATIVE AREAS, WHERE CULVERTS ARE NOT PRACTICAL. OPERATOR WILL HAVE OTHER SEDIMENT CONTROL IN PLACE TO MINIMIZE EROSION AND SEDIMENTATION.

TEMPORARY SEEDING: SEE ATTACHMENT #1.
 CROSS DRAINS, BROAD BASED DIPS, WATER BARS, AND DIVERSION DITCHES WILL BE EMPLOYED DURING THE CONSTRUCTION PHASE. THESE EROSION AND SEDIMENT CONTROL STRUCTURES WILL BE USED TO CONTROL EROSION AND SEDIMENTATION DURING THE CONSTRUCTION PHASE, WHERE APPLICABLE AND AREAS THAT WILL ALLOW. THESE STRUCTURES WILL BE CONSIDERED PERMANENT AND USED AS SUCH.

AFTER THE DRILLING AND COMPLETION PROCESS, CROSS DRAINS, BROAD BASED DIPS, WATER BARS AND DIVERSION DITCHES WILL BE AN INTEGRAL PART OF THIS RECLAMATION PROCESS AND SHALL BE INSTALLED AND SPACED IN ACCORDANCE WITH THE AS-BUILT ROADWAY SLOPES AND TABLE 11-4 OF THE EROSION SEDIMENT CONTROL FIELD MANUAL.

PERMANENT SEEDING: SEE ATTACHMENT #1
 TEMPORARY SEEDING TO BE APPLIED TO ALL SLOPES AFTER CONSTRUCTION.

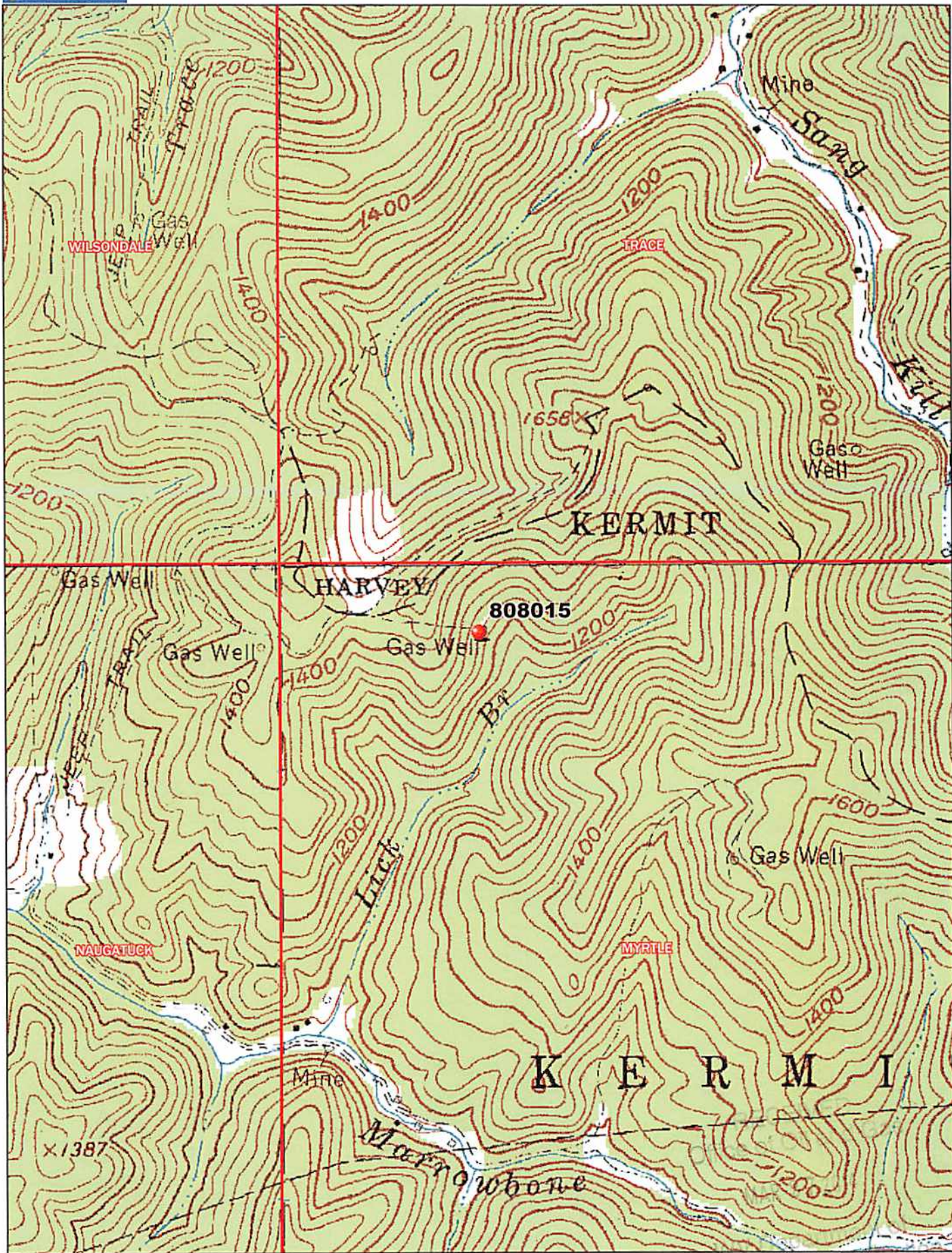


CONSTRUCTION & RECLAMATION SITE PLAN
 PROPOSED PLUG AND ABANDONMENT
 WELL 808015

Located Near The Community Of Parsley
 In The Kermit District Of Mingo county
 West Virginia.

DATE: 03-21-14
 DRAWN BY: JDH

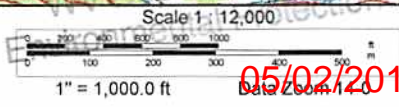
SCALE: Not To Scale
 808015 P&A Rec Plan.dwg



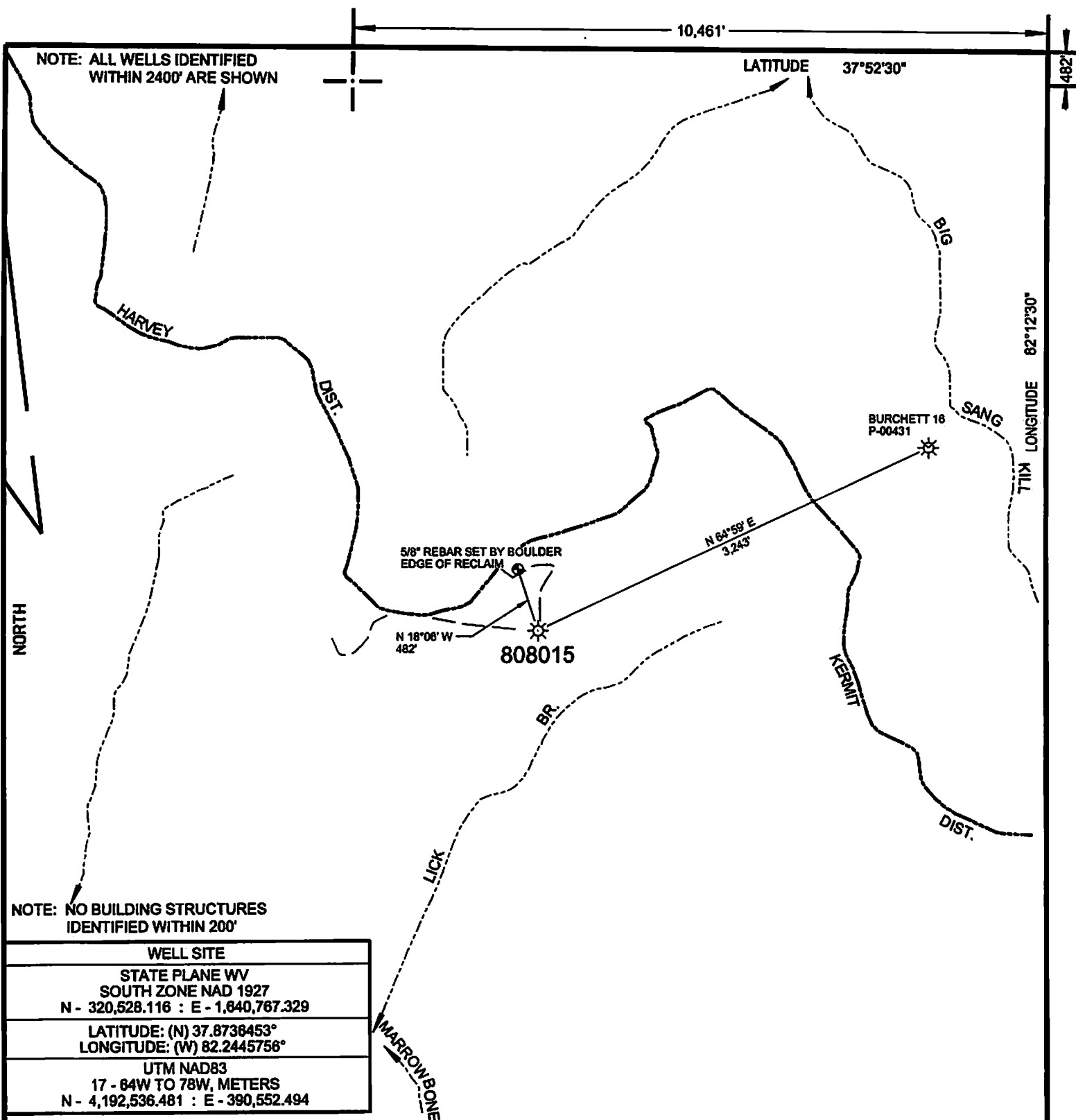
Data use subject to license.

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www.delorme.com



05/02/2014



WELL SITE	
STATE PLANE WV SOUTH ZONE NAD 1927 N - 320,528.116 : E - 1,640,767.329	
LATITUDE: (N) 37.8736453° LONGITUDE: (W) 82.2445756°	
UTM NAD83 17 - 64W TO 78W, METERS N - 4,192,536.481 : E - 390,552.494	

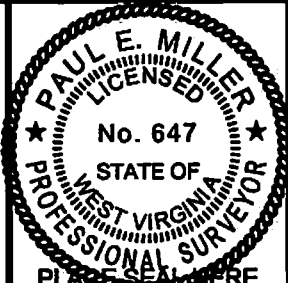
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO.	CA808015.DGN
DRAWING NO.	CA808015 P&A.DGN
SCALE	1" = 1000'
MINIMUM DEGREE OF ACCURACY	1:200
PROVEN SOURCE OF ELEVATION	MAPPING GRADE GPS

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 ENVIRONMENTAL PROTECTION.

(SIGNED) *Paul E. Miller*

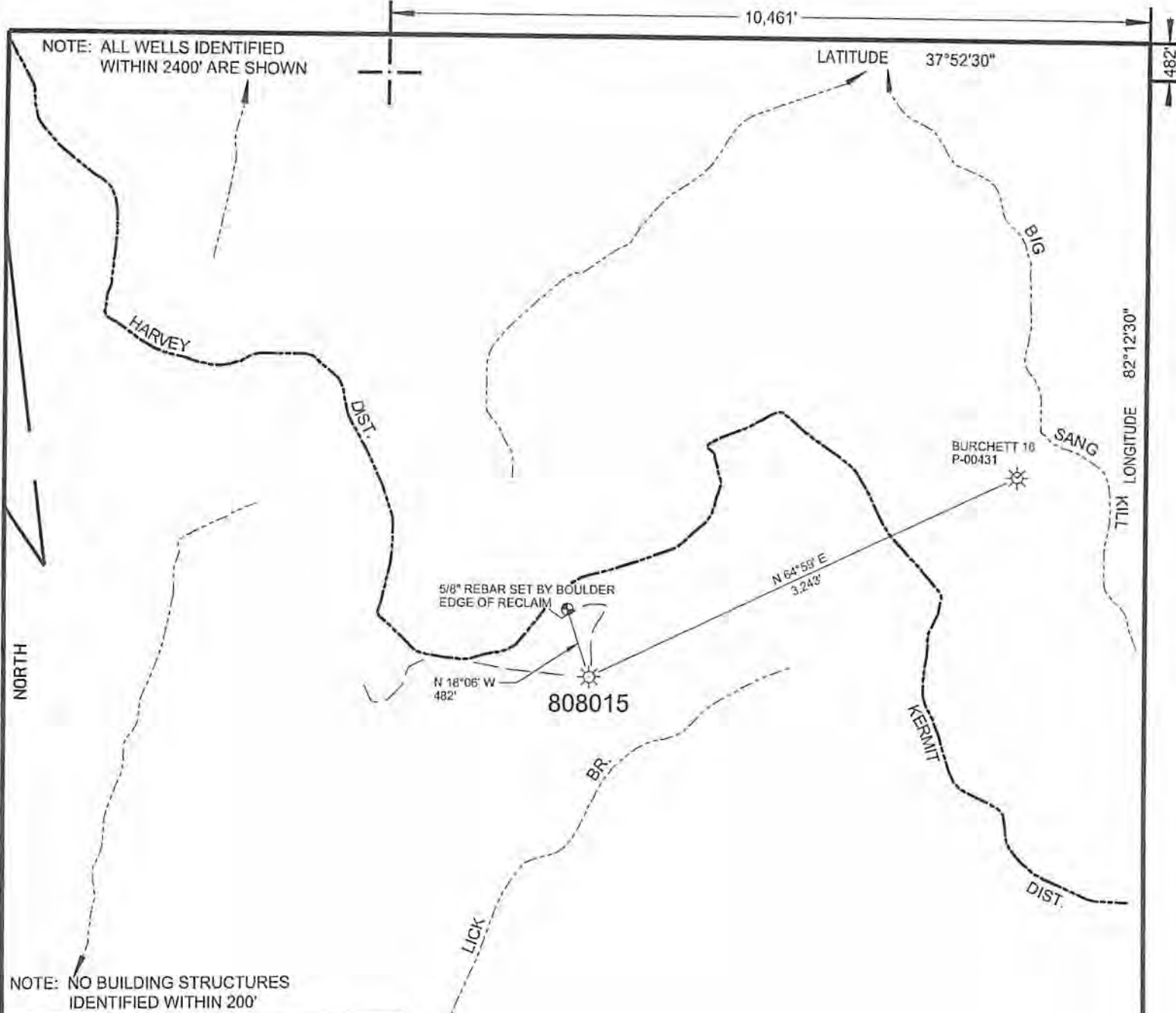
R.P.E. _____ L.L.S. 647



STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION		DATE	FEBRUARY, 20 14	
		OPERATOR'S WELL NO.	808015	
WELL TYPE: OIL ___ GAS <u>X</u> LIQUID INJECTION ___ WASTE DISPOSAL ___		STATE	COUNTY	PERMIT
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW <u>X</u>		47	059	00341 P
LOCATION: ELEVATION 1282' WATER SHED LICK BR. OF MARROWBONE CREEK				
DISTRICT KERMIT COUNTY MINGO				
QUADRANGLE TRACE, WV 7.5'				
SURFACE OWNER COTIGA DEVELOPMENT CO. ACREAGE 3525				
OIL & GAS ROYALTY OWNER COTIGA DEVELOPMENT CO. LEASE ACREAGE 3525				
LEASE NO. 10042832		05/02/2014		
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____		RECEIVED Office of Oil and Gas		
PLUG AND ABANDON <u>X</u> CLEAN OUT AND REPLUG ___		MAR 27 2014		
TARGET FORMATION BIG LIME & SHALE ESTIMATED DEPTH _____				
WELL OPERATOR CHESAPEAKE APPALACHIA, L.L.C. DESIGNATED AGENT ERIC B. GILLESPIE				
ADDRESS P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496 ADDRESS CHESAPEAKE APPALACHIA, L.L.C., PO BOX 6070, CHARLESTON, WV 25362				

FORM WW-6

COUNTY NAME PERMIT



WELL SITE	
STATE PLANE WV SOUTH ZONE NAD 1927	N - 320,528,116 : E - 1,640,767.329
LATITUDE: (N) 37.8736453° LONGITUDE: (W) 82.2445756°	
UTM NAD83 17 - 84W TO 78W, METERS	N - 4,192,536.481 : E - 390,552.494

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO.	CA808015.DGN
DRAWING NO.	CA808015 P&A.DGN
SCALE	1" = 1000'
MINIMUM DEGREE OF ACCURACY	1 : 200
PROVEN SOURCE OF ELEVATION	MAPPING GRADE GPS

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 ENVIRONMENTAL PROTECTION.

(SIGNED) *Paul E. Miller*

R.P.E. _____ L.L.S. 647



STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION		DATE <u>FEBRUARY</u> , 20 <u>14</u>
WELL TYPE: OIL <input type="checkbox"/> GAS <input type="checkbox"/> LIQUID INJECTION <input checked="" type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/>		OPERATOR'S WELL NO. <u>808015</u>
(IF "GAS,") PRODUCTION <input type="checkbox"/> STORAGE <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>		API WELL NO. <u>47 059 00341 P</u>
LOCATION: ELEVATION <u>1282'</u> WATER SHED <u>LICK BR. OF MARROWBONE CREEK</u>		STATE <u>47</u> COUNTY <u>059</u> PERMIT <u>00341 P</u>
DISTRICT <u>KERMIT</u> COUNTY <u>MINGO</u>		
QUADRANGLE <u>TRACE, WV 7.5'</u>		
SURFACE OWNER <u>COTIGA DEVELOPMENT CO.</u> ACREAGE <u>3525</u>		
OIL & GAS ROYALTY OWNER <u>COTIGA DEVELOPMENT CO.</u> LEASE ACREAGE <u>3525</u>		
LEASE NO. <u>10042832</u>		
PROPOSED WORK: DRILL <input type="checkbox"/> CONVERT <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____		
PLUG AND ABANDON <input checked="" type="checkbox"/> CLEAN OUT AND REPLUG <input type="checkbox"/>		
TARGET FORMATION <u>BIG LIME & SHALE</u> ESTIMATED DEPTH _____		
WELL OPERATOR <u>CHESAPEAKE APPALACHIA, L.L.C.</u> DESIGNATED AGENT <u>ERIC B. GILLESPIE</u>		
ADDRESS <u>P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496</u> ADDRESS <u>CHESAPEAKE APPALACHIA, L.L.C. PO BOX 6070, CHARLESTON, WV 25362</u>		

RECEIVED
Office of Oil and Gas
MAR 27 2014

COUNTY NAME
PERMIT