



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

November 01, 2013

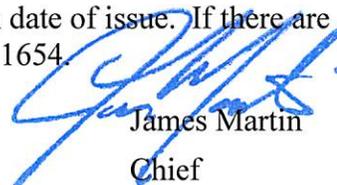
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4701845, issued to CABOT OIL & GAS CORPORATION, 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: POCA LAND M-105
Farm Name: POCAHONTAS LAND CORP.
API Well Number: 47-4701845
Permit Type: Plugging
Date Issued: 11/01/2013

Promoting a healthy environment.

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 October 15, 2013
2) Operator's
Well No. Pocahontas Land M-105
3) API Well No. 47-047 - 01845 P

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 443.24 MSL meters Watershed Sandlick Creek of Tug Fork of the Big Sandy River
District Adkin County McDowell Quadrangle Gary
- 6) Well Operator Cabot Oil & Gas Corporation 7) Designated Agent Whitney Johnson
Address Five Penn Center West, Ste. 401 Address Cabot Oil & Gas Corporation
Pittsburgh, PA 15276 P.O. Box 450, Glasgow, WV 25086
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gary Kennedy Name Viking Well Service, Inc.
Address P.O. Box 268 Address 8113 Sissonville Drive
Nimitz, WV 25978 Sissonville, WV 25320

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

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

Work order approved by inspector  Date 10/21/13

POCAHONTAS LAND "M" #105
API # 47 - 047 - 01845 P
PLUGGING PROCEDURE

Current Configuration

DTD @ 4088'
18 – Conductor @ 37' KB
13 ³/₈" – 48# LS casing @ 268' KB cemented & grouted to surface
9 ⁵/₈" – 26# LS casing @ 757' KB cemented to surface
7" - 20# - LS casing @ 1114' KB cemented to surface
4 ¹/₂" - 10.5# - J55 casing @ 3152' w/ TOC @ 2450'
Following primary cement job, 4 ¹/₂" casing was gravity squeezed
TOC from gravity squeeze @ 430'
4 ¹/₂" casing found to be tight @ 833' with 2" tools able to get through
2-3/8" – 4.6# J-55 tubing @ 830' KB
Big Lime perforations: 3027' – 3037' & 2875' – 2885'
Ravencliff perforations: 835' – 859'
Coal @ 70'– 73', 105' – 108', 160' – 163', 185' – 188'
Water @ 30' & 160'

PROCEDURE

1. Contact Pineville District Office a minimum of 48 hours prior to starting work
2. Contact state inspector a minimum of 24 hours prior to starting work.
3. MIRU service rig and blow down well.
4. Lay 2" line from wellhead to pit/tank and stake down securely.
5. Have vacuum truck available to catch any fluids circulated from well.
6. Unpack wellhead.
7. Pull 2-3/8" tubing.
8. TIH with 1-1/2" work string to 3050'.
9. MIRU Cementing Company.
10. Pump 30 bbls of 6% Gel followed by 30 sacks of Class A cement for Cement Plug 1 from 3050' to 2650'.
11. Displace with 5 bbls of 6% Gel.
12. Pull work string up to 860' and pump 15 sacks of Class A cement for Cement Plug 2 from 860' to 660'.
13. Displace with 1 bbl of 6% Gel.
14. TOOH with work string and lay down. Let cement plugs set for a minimum of eight hours.
15. MIRU Wireline Company and check setting of Cement Plug 2 at 660'.
16. Cut the 4 ¹/₂" casing @ 400' and POOH.
17. TIH with 2-3/8" tubing to 450' and pump 81 sacks of Class A cement for Cement Plug 4 from 450' to surface.
18. TOOH with 2-3/8" tubing and lay down.
19. RDMO Cement company
20. Erect Monument according to Law.
21. RDMO.

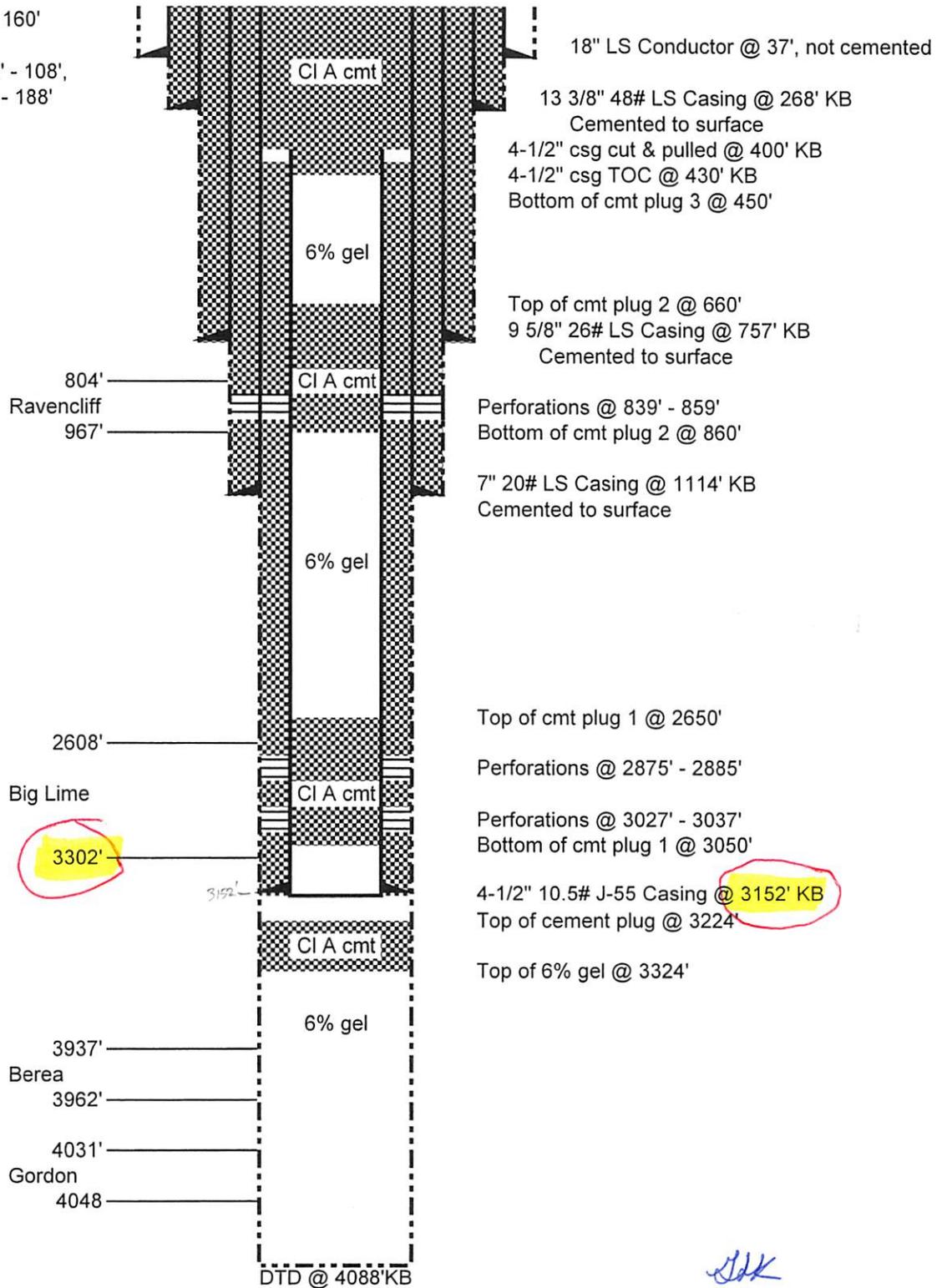
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10/21/13

ELEV 1454'

Pocahontas Land M-105 API 47-047-01845 PROPOSED CONFIGURATION

Fresh water @ 30' & 160'

Coal @ 70' - 73', 105' - 108',
160' - 163', & 185' - 188'



Schematic is not to scale

JK
10/21/13

PROVIDED BY 0046
4701845P

WR-35

Date June 1, 2004
API# 47- 047 - 01845

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name: Pocahontas Land Corp. Operator Well No.: Pocahontas Land M-105

LOCATION: Elevation: 1454' Quadrangle: Gary
District: Adkin County: McDowell
Latitude: 8450' feet South of 37° DEG. 22' MIN. 30" SEC.
Longitude: 1475' feet West of 81° DEG. 32' MIN. 30" SEC.

Company: Cabot Oil & Gas Corporation
900 Lee Street East, Suite 500
Charleston, WV 25301

Agent: Thomas S. Liberatore
Inspector: Bill Hatfield
Permit Issued: 11/17/2003
Well Work Commenced: March 22, 2004
Well Work Completed: April 27, 2004
Verbal Plugging: _____
Permission granted on:
Rotary X Cable _____
Total Depth (feet) 4088
Fresh Water Depths (ft) 30, 160
Salt Water Depths (ft) None Reported
Is coal being mined in area (Y/N)? Y
Coal Depths (ft) 70-73, 105-108, 160-163, 185-188

| Casing & Tubing Size | Used in Drilling | Left In Well | Cement Fill Up Cu. Ft. |
|---|------------------|--------------|------------------------|
| 18" | 37' | 37' | N/A |
| 13-3/8" | 268' | 268' | 842 |
| 9-5/8" | 757' | 757' | 328 |
| 7" | 1114' | 1114' | 257 |
| 4-1/2" | | 3152' | 94 |
| Gravity Squeeze 4-1/2" x 7" annulus from 2075' - 430' | | | 204 |
| Plugged back from TD to 3224' see details below | | | |
| 2-3/8" | | 830' | |

OPEN FLOW DATA

Producing Formation BIG LIME Pay Zone 3027' - 3037'
Depth (ft) 2875' - 2885'
Gas: Initial Open Flow 84 MCF/d Oil: Initial Open Flow 0 Bbl/d
Final Open Flow 60 (COMMINGLED) MCF/d Final Open Flow 0 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock pressure 126 psig surface pressure after 86 Hours

Second Producing Formation RAVENCLIFF Pay Zone 835' - 859'
Depth (ft) 835' - 859'
Gas: Initial Open Flow 800 MCF/d Oil: Initial Open Flow 0 Bbl/d
Final Open Flow 60 (COMMINGLED) MCF/d Final Open Flow 0 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock pressure 126 psig surface pressure after 86 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1.) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2.) THE WELL LOG WHICH IS SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE

For: CABOT OIL & GAS CORPORATION
By: [Signature] Drilling Superintendent
Date: 1/5/05

RECEIVED
Office of Oil & Gas
Office of Chief
JAN 06 2005
WV Department of
Environmental Protection

MCDOWELL 1845

PROVIDED BY
O.O.G.
4701845P

| STAGE | PERFS | ACID 15% HCl | FOAM | SAND (lbs) | NITROGEN (scf) | BDP |
|--------------|----------------|-----------------|------|---------------|-------------------|------|
| 1-Big Lime | 3027-3037 (40) | | 75Q | 40200 | 395,000 | 1790 |
| 2-Big Lime | 2875-2885 (40) | 3000 gal | | | 43,000 | 3700 |
| 3-Ravenclyff | 835-859 (52) | | 75Q | 74200 | 918,000 | 650 |

| FORMATION | TOP | BOTTOM |
|-------------|---------|--------|
| Silt/Shale | Surface | 712 |
| Shale | 712 | 804 |
| RV | 804 | 984 |
| Shale | 984 | 1100 |
| Avis | 1100 | 1135 |
| Silt/Shale | 1135 | 2136 |
| Maxton | 2136 | 2226 |
| Shale | 2226 | 2296 |
| Little Lime | 2296 | 2400 |
| Lime/Shale | 2400 | 2608 |
| Big Lime | 2608 | 3300 |
| Injun | 3300 | 3400 |
| Pocono | 3400 | 3571 |
| Shale | 3571 | 3938 |
| Berea | 3938 | 3950 |
| Shale | 3950 | 4032 |
| Gordon | 4032 | 4050 |
| Shale | 4050 | 4088 |

Plug back details
6% gel from 4088' to 3324'
Class "A" cement from 3324' to 3224'

WW-4A
Revised 6-07

1) Date: October 15, 2013
2) Operator's Well Number
Pocahontas Land M-105
3) API Well No.: 47 - 047 - 01845

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>Pocahontas Land Corporation</u> ✓ | Name <u>XMV, Inc.</u> ✓ |
| Address <u>P.O. Box 1517</u> | Address <u>640 Clover Dew Dairy Road</u> |
| <u>Bluefield, WV 24701</u> | <u>Princeton, WV 24739</u> |
| (b) Name _____ | (b) Coal Owner(s) with Declaration |
| Address _____ | Name <u>Pocahontas Land Corporation</u> ✓ |
| | Address <u>P.O. Box 1517</u> |
| | <u>Bluefield, WV 24701</u> |
| (c) Name _____ | Name _____ |
| Address _____ | Address _____ |
| | |
| 6) Inspector <u>Gary Kennedy</u> ✓ | (c) Coal Lessee with Declaration |
| Address <u>P.O. Box 268</u> | Name <u>See Attached Sheet</u> ✓ |
| <u>Nimitz, WV 25978</u> | Address _____ |
| Telephone <u>(304) 382-8402</u> | |

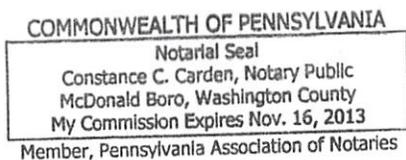
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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 Cabot Oil & Gas Corporation
 By: Kenneth L. Marcum *Kenneth L. Marcum*
 Its: Regulatory Supervisor
 Address Five Penn Center West, Ste.401
Pittsburgh, PA 15276
 Telephone (412) 249-3850



Subscribed and sworn before me this 16th day of October
Constance C. Carden Notary Public
 My Commission Expires November 16, 2013

RECEIVED
Office of Oil and Gas
OCT 18 2013

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.

Coal Lessee with Declaration
Pocahontas Land M-105
47-047-01845

- ✓ National Resources, Inc.
P.O. Box 1085
Beckley, WV 25802
- ✓ Consolidation Coal Company
1000 Consol Energy Drive
Canonsburg, PA 15317
- ✓ Consol Energy
U.S. 460 East
Drawer L
Oakwood, VA 24631
- ✓ Don Pugilo
Leatherwood, Inc.
4000 Brownsvill Road
South Part, PA 15219
- ✓ Brooks Run Mining Company
Attn: Kevin Davis
208 Business Street
Beckley, WV 25801
- ✓ Phoenix Enterprises, Inc.
c/o Concept Mining, Inc.
215 Suppliers Road
Bluefield, WV 24605
- ✓ Concept Mining, Inc.
215 Suppliers Road
Bluefield, VA 24605
- ✓ Split Fork Mining Company
P.O. Box 117
Caretta, WV 24821
- ✓ Westwood Mining Co., Inc.
P.O. Box 1030
Bluefield, VA 24605

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Office of Oil and Gas
OCT 18 2013
WV Department of
Environmental Protection

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Cabot Oil & Gas Corporation OP Code 307249

Watershed (HUC 10) 0507020102 Quadrangle 359-Gary

Elevation 1454.70 County McDowell District Adkin

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No XX

Will a pit be used for drill cuttings? Yes _____ No XX

If so, please describe anticipated pit waste: _____

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? yes

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. n/a

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? n/a

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. n/a

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

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 Kenneth L Marcum

Company Official (Typed Name) Kenneth L Marcum, PS

Company Official Title North Region Survey/Coal Coordinator

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Constance C. Carden, Notary Public
McDonald Boro, Washington County
My Commission Expires Nov. 16, 2013
Member, Pennsylvania Association of Notaries

Subscribed and sworn before me this 16th day of October, 2013

Constance C. Carden Notary Public

My commission expires November 16, 2013

CC
10/21/13

Form WW-9

Operator's Well No. Poca M-105

Cabot Oil & Gas Corporation

Proposed Revegetation Treatment: Acres Disturbed 0.28 Prevegetation pH 6.7

Lime 2 Tons/acre or to correct to pH 6.5

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

Mulch pulp fiber; 1/2-3/4 Tons/acre

Seed Mixtures

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

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

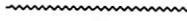
Title: Inspector Date: 10/21/13

Field Reviewed? (X) Yes () No

GENERAL NOTES:

- 1.) THESE DRAWINGS ARE A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS THE DRILLING PIT, ROADWAY, CULVERTS, SEDIMENT BARRIERS, ETC. ARE SHOWN IN THEIR APPROXIMATE PREPLANNING CONFIGURATION. GIVEN UNFORSEEN CIRCUMSTANCES, THE AS-BUILT LOCATION OF THESE STRUCTURES MAY VARY SLIGHTLY FROM THE LOCATION SHOWN ON THE ATTACHED DRAWINGS.
- 2.) ALL ROADS SHOWN THEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES AND REQUIREMENTS OF THE WV DEP OIL & GAS EROSION AND SEDIMENT CONTROL MANUAL.
- 3.) ALL CULVERTS SHOWN ON THESE DRAWINGS ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.
- 4.) DITCHLINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL; HOWEVER, PORTIONS OF THE EXISTING ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.
- 5.) SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES/MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHERE AND WHEN DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF SILT FENCES OR OTHER MEASURES AS OUTLINED IN THE EROSION AND SEDIMENT CONTROL MANUAL.
- 6.) SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAIN INLETS AS REQUIRED IN THE WV-DEP OIL & GAS EROSION AND SEDIMENT CONTROL MANUAL. FIELD CONDITIONS SUCH AS ROCK OUTCROPS AND BEDROCK MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.
- 7.) SEDIMENT BARRIERS OF EITHER WINDROWED BRUSH, FILTER FENCE ET CETERA WILL BE INSTALLED AND MAINTAINED BELOW THE OUTFALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DISCHARGE POINTS FROM EITHER THE ROADWAY OR SITE LOCATIONS.
- 8.) ALL NECESSARY TIMBER AND BRUSH WILL BE REMOVED FROM THE PROPOSED ROADWAY AND SITE LOCATIONS BY CLEARING AND GRUBBING ACTIVITIES. ANY MARKETABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER AND BRUSH WILL BE CUT AND WINDROWED BELOW THE OUTFALL OF THE CONSTRUCTION AREAS, TO BE UTILIZED AS A SEDIMENT BARRIER.
- 9.) SEPARATE PERMITS WILL BE OBTAINED FROM THE WV-DOT FOR ALL POINTS OF INGRESS-EGRESS FROM COUNTY/STATE ROADS. THESE INGRESS-EGRESS POINTS WILL BE MAINTAINED IN ACCORDANCE WITH CURRENT WV-DOT REGULATIONS. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS-EGRESS POINTS OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH CURRENT WV-DOT REGULATIONS.
- 10.) ALL CULVERTS SHOWN ON THESE DRAWINGS ARE TO BE CONSIDERED PERMANENT AND WILL REMAIN IN PLACE AFTER THE COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIPRAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUTFALL OF ANY ROADWAY CULVERT(S) WHICH ARE NOT LOCATED IN A STREAM CHANNEL OR CREEK.
- 11.) PERMANENT CROSS DRAINS OR WATERBARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH THE AS-BUILT ROADWAY GRADES AND TABLE II-4 OF THE SEDIMENT AND EROSION CONTROL FIELD MANUAL.
- 12.) TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, SITE LOCATIONS, ROAD OR SITE OUTFLOPS AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES RESULTING FROM THE PROPOSED WELL.
- 13.) THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO MINIMIZE ENVIRONMENTAL IMPACTS AND MEET THE REQUIREMENTS OF THE WV-DEP.

DRAWING LEGEND

- Proposed Road 
- Existing Road 
- Silt Fence 
- Brush Barrier 
- Tree Line 
- Rock Rip Rap 
- Cross Drain 
- Culvert 
- Drilling Pit 
- Road Ditch 
- Gas Line 
- Fence Line 
- Rock Outcrop 
- Water Well 
- House/Structure 
- Utility Pole 
- Spring 
- Wet Spot 
- Pit Waste App. Area 

SPACING OF CULVERTS BY GRADE

| ROAD GRADE (%) | DISTANCE |
|----------------|----------|
| 2-5 | 500-300 |
| 6-10 | 300-200 |
| 11-15 | 200-100 |
| 16-20 | 100 |

SPACING OF CROSS DRAINS BY GRADE

| ROAD GRADE (%) | DISTANCE |
|----------------|----------|
| 1 | 400 |
| 2 | 250 |
| 5 | 135 |
| 10 | 80 |
| 15 | 60 |
| 20 | 45 |

CONTRACTOR NOTE:

IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO FIELD VERIFY THE SIZE/CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEWERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION AND/OR EXCAVATION ACTIVITIES

WEST VIRGINIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS NOTICE IN DESIGN STAGE.

CALL 1-800-245-4848

Handwritten signature and date:
10/21/13

4701845P

Cabot Oil & Gas Corporation Well No. Poca M-105

TOPO SECTION OF:
United States Department of the Interior
Geological Survey - Gary, WV - 7 1/2 Quadrangle

PROPOSED CULVERT INVENTORY (For Bid Purposes Only)

| | |
|------------------------|------|
| 15" (Minimum) Culverts | none |
|------------------------|------|

Additional Culverts and/or other drainage structures and sediment control devices may be required by the WVDEP Oil & Gas Inspector. Operator is responsible for coordination with contractor and True Line regarding any changes or additions the State may require.

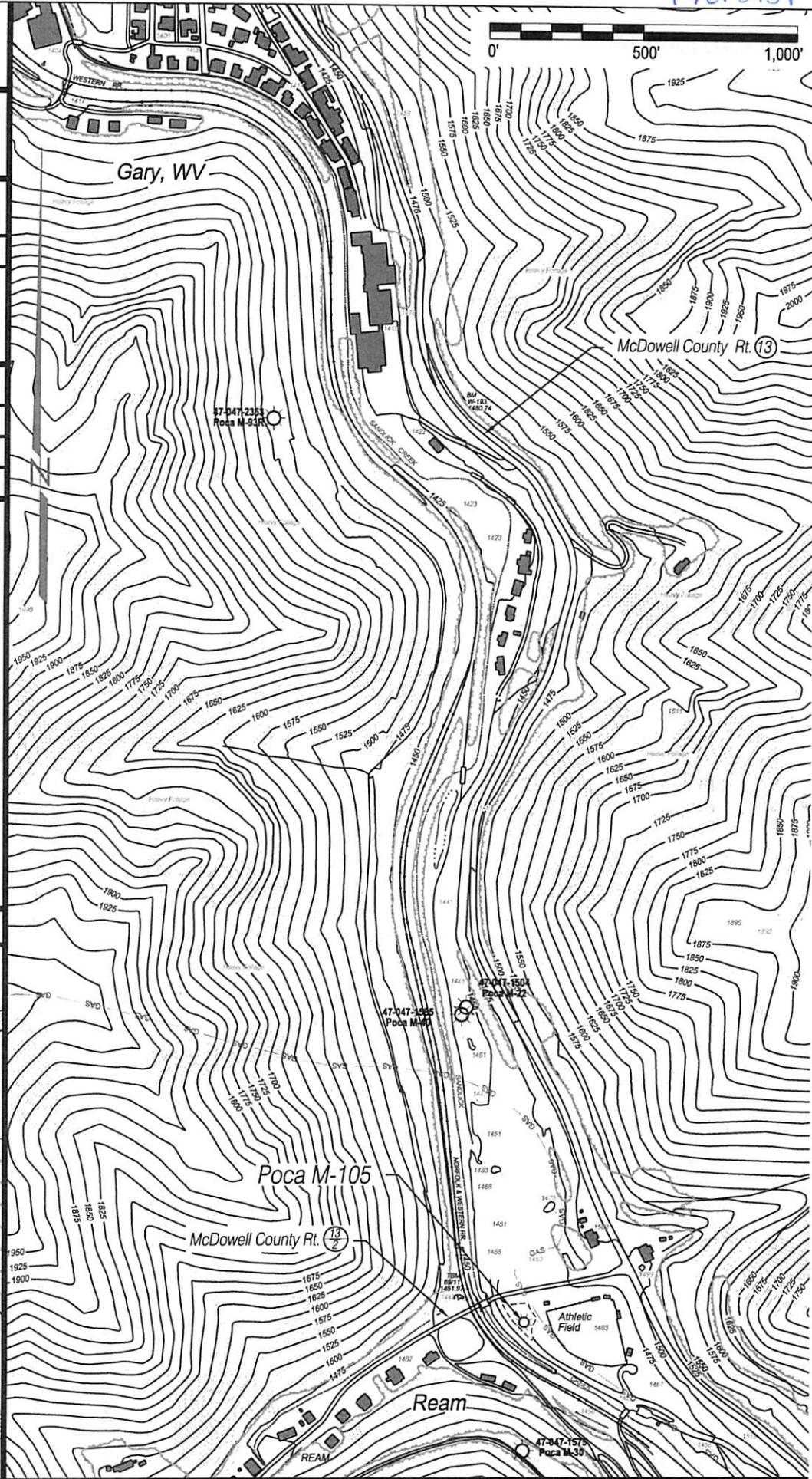
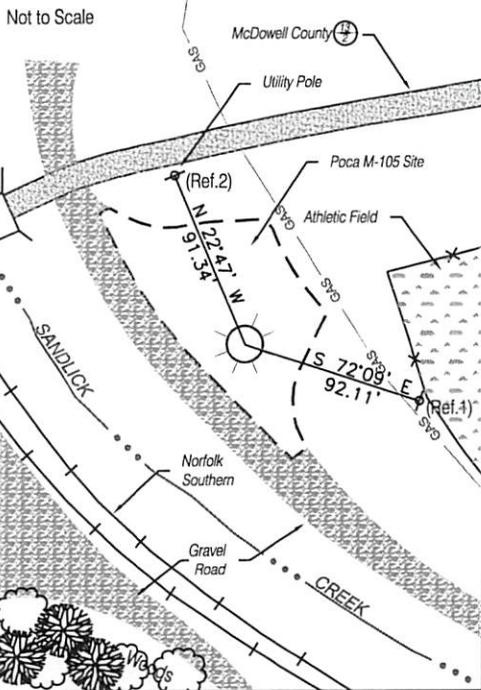
PROJECTED EARTHEN DISTURBANCE

| | |
|-------------------------------|------------|
| Well Location Site | 0.16 Acres |
| Access Road | 0.00 Acres |
| Approximate Total Disturbance | 0.16 Acres |

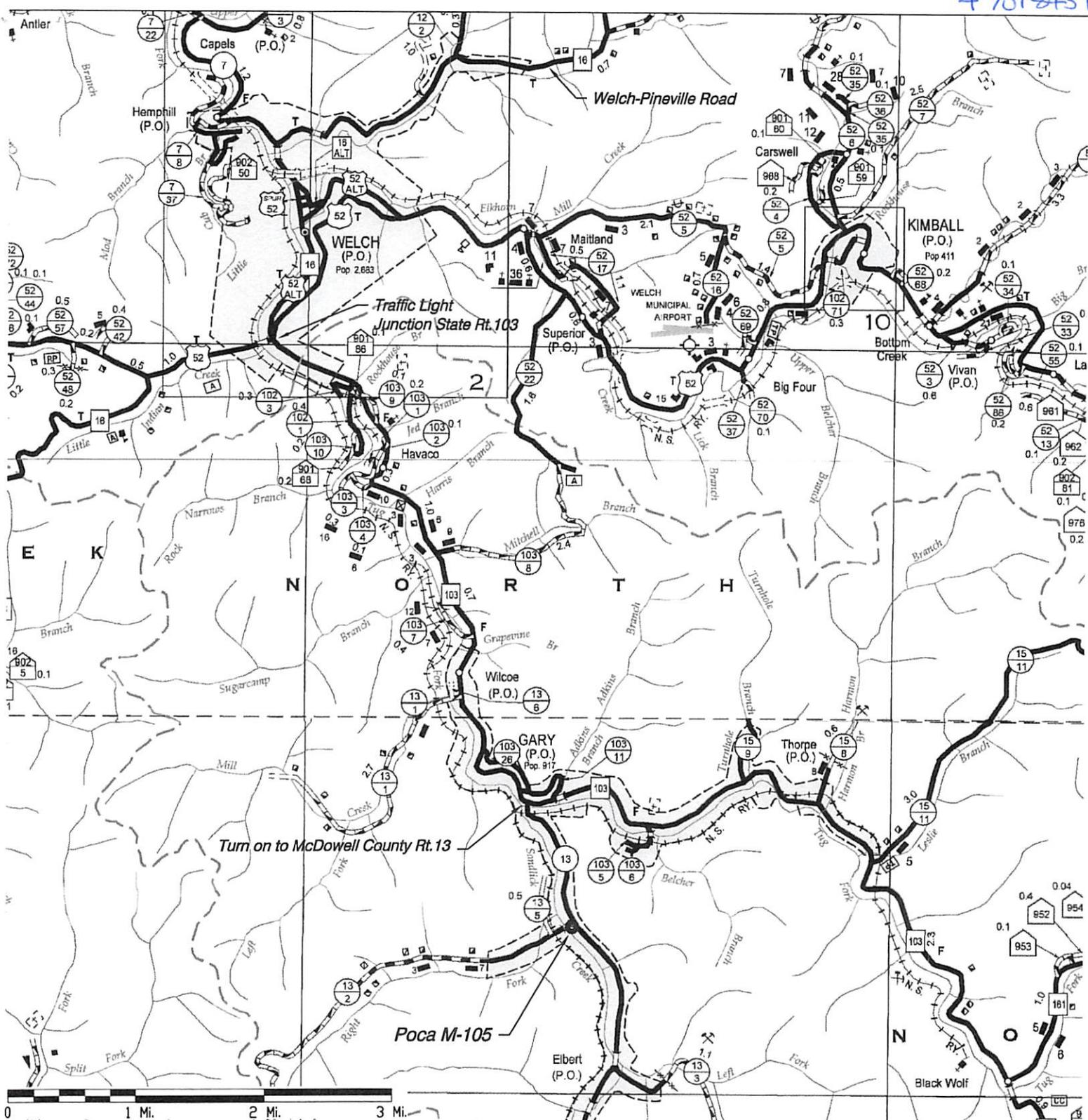
LEGEND

- Proposed Road
- Existing Road
- Existing Culvert
- Proposed Culvert (15" Min. unless noted)
- Proposed Stream Crossing
- Cross Drain
- Diversion Ditch
- Silt Fence
- Brush Barrier
- Tree Line
- Road Ditch
- Gas Line
- Fence Line
- Water Well
- House/Structure
- Spring
- Wet Spot

Detail Sketch for Existing Well Poca M-105



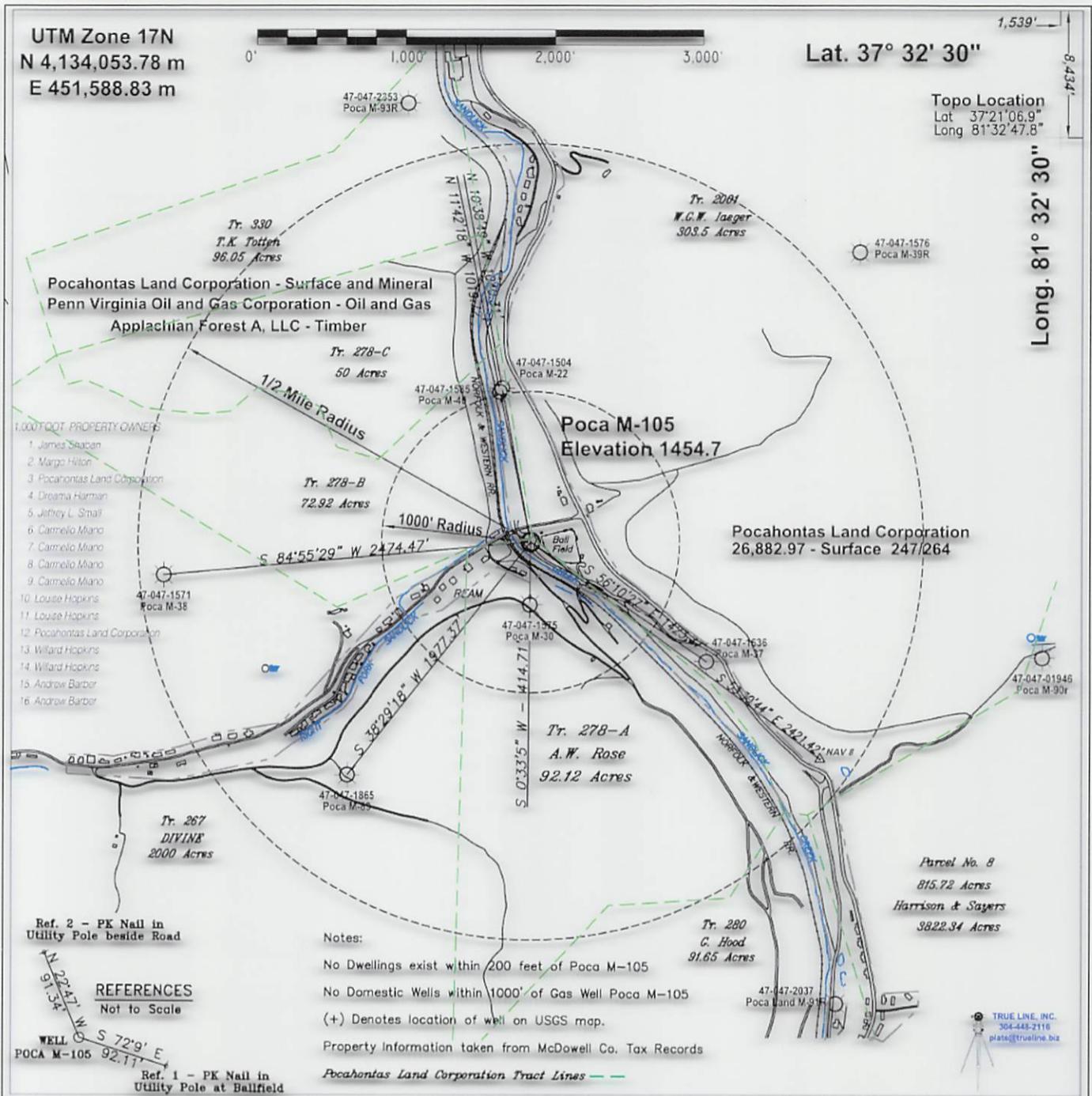
10/21/13



Driving Directions:

1. From Cabot's Pineville, WV office, take WV Rt.10 South 0.2 miles to junction with WV Rt.16 South at the bridge over the Guyandotte River.
2. Turn right at the bridge onto Rt.16 South (Welch-Pineville Road) for ±19 miles to the junction of US Rt.52 in Welch, WV at the traffic light. At the intersection with the traffic light, proceed straight ahead on West Virginia Rt.103.
3. Follow West Virginia Rt.103 for ±5.4 miles to the community of Gary, West Virginia and the junction of McDowell County Rt.13.
4. Turn right on to McDowell County Rt.13 at the Bantam Market and continue through town and up Sandlick Creek for ±1.2 miles to the intersection with McDowell County Rt. $\frac{13}{2}$ on the right beside an athletic field. Turn right onto $\frac{13}{2}$ and proceed 425 feet.
5. The Poca M-105 site is located on the left side of the county road between the athletic field and Sandlick Creek.

Handwritten signature and date: 10/2/13



FILE #: \Cabot Oil & Gas\2014

DRAWING #: WW-6-PocaM-105 Plat.pdf

SCALE: see barscale above

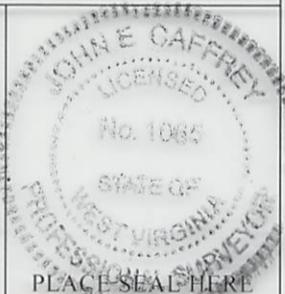
MINIMUM DEGREE OF ACCURACY: 1:2500

PROVEN SOURCE OF ELEVATION: submeter 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: *[Signature]*

R.P.L. _____ L.L.S.: 1065



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

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: September 11, 2013

OPERATOR'S WELL #: Poc M-105

API WELL #: 47 47 01845 P

STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: Sandlick Creek of Tug Fork of the Big Sandy River ELEVATION: 443.24 MSL meters

COUNTY/DISTRICT: 047-McDowell / 1-Adkin QUADRANGLE: 359 - GARY

SURFACE OWNER: Pocahontas Land Company ACREAGE: 55.22

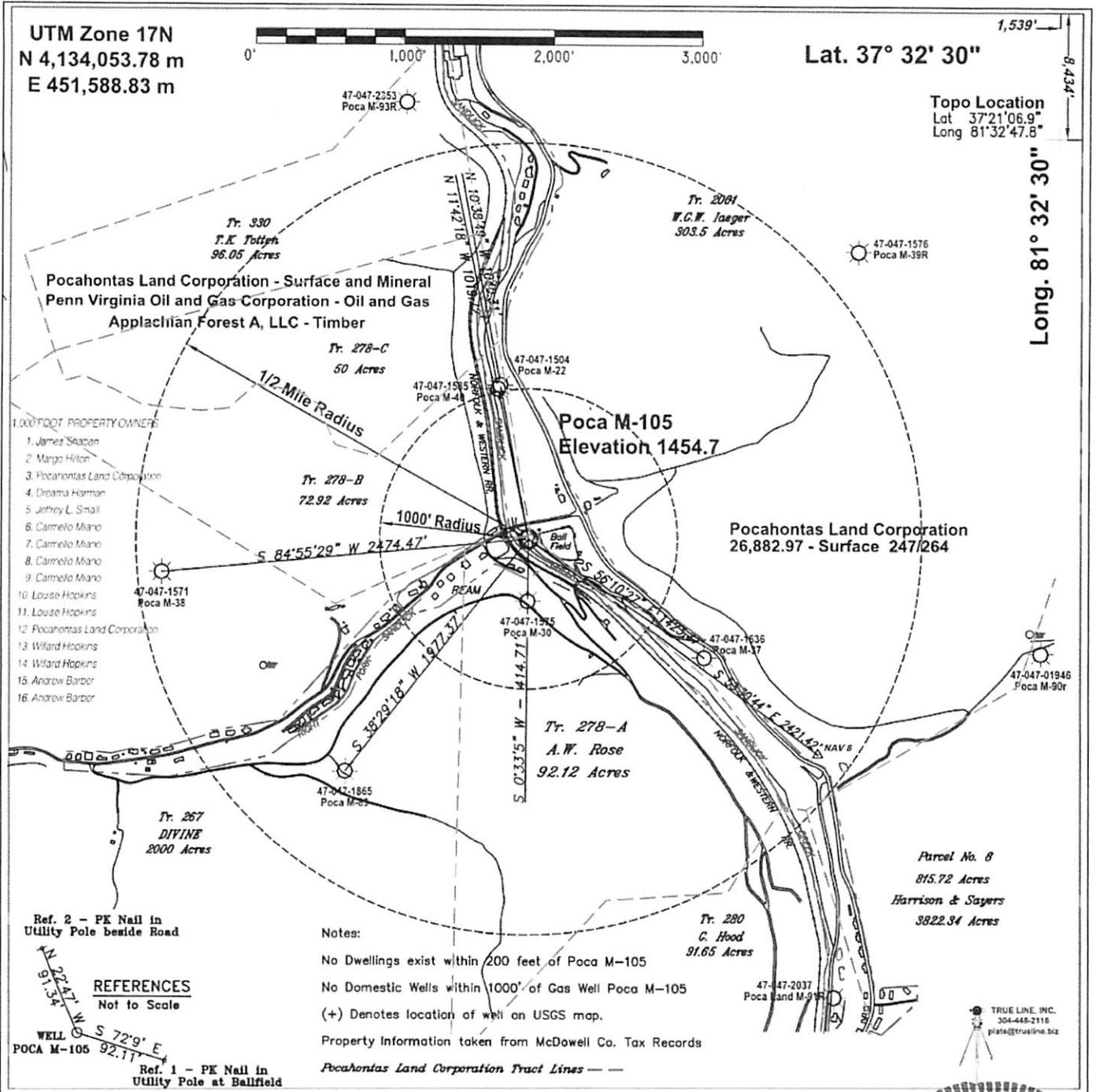
OIL & GAS ROYALTY OWNER: Penn Virginia Oil and Gas Corporation ACREAGE: 47.520

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: Ravencliff/Avis SS, Big Lime ESTIMATED DEPTH: 4,088

WELL OPERATOR Cabot Oil & Gas Corporation DESIGNATED AGENT Whitney Johnson
 Address Five Penn Center West, Suite 401 Address P.O. Box 450
 City Pittsburgh State PA Zip Code City Glasgow State WV Zip Code 25086

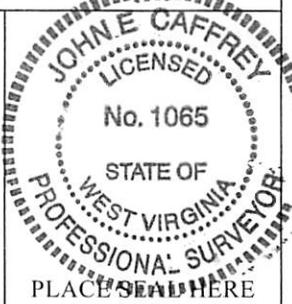
4701845P



FILE #: \Cabot Oil & Gas\2014\
 DRAWING #: WW-6-PocaM-105 Plat.pdf
 SCALE: see barscale above
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: submeter 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: *[Signature]*
 R.P.E.: _____ L.L.S.: 1065



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WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: September 11, 2013
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 STATE COUNTY PERMIT

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 SURFACE OWNER: Pocahontas Land Company ACREAGE: 55.22
 OIL & GAS ROYALTY OWNER: Penn Virginia Oil and Gas Corporation ACREAGE: 47.520

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 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: Ravencliff/Avis SS, Big Lime ESTIMATED DEPTH: 4,088

WELL OPERATOR Cabot Oil & Gas Corporation DESIGNATED AGENT Whitney Johnson
 Address Five Penn Center West, Suite 401 Address P.O. Box 450
 City Pittsburgh State PA Zip Code City Glasgow State WV Zip Code 25086

[Signature]
 10/21/13



October 15, 2013

Chief
West Virginia Division of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Pocahontas Land M-105
Adkin District, McDowell County, WV
API # 47-047-01845
Written Application to plug and abandon wellbore

Dear Chief:

In accordance with Article 22-6-23 of the Code of State Regulations regarding oil and gas operations, please find attached a formal application for the plug and abandonment of the subject well.

Notices of our intention to plug this wellbore have been sent to surface owner, coal owner, and coal operators associated with this well. Copies of the certified mail receipts are attached for your records.

If you have any questions or need additional information, I can be reached at 412-249-3850.

Sincerely,



Kenneth L. Marcum
Regulatory Supervisor

RECEIVED
Office of Oil and Gas
OCT 18 2013
WV Department of
Environmental Protection

47 01845A



CERTIFIED MAIL

October 15, 2013

Gary Kennedy
P.O. Box 268
Nimitz, WV 25978

Re: Pocahontas Mining #105
Adkin District, McDowell County, WV
API # 47-047-01845
Written Application to plug and abandon wellbore

Dear Mr. Kennedy:

Enclosed are the following forms for the subject well:

| | |
|--------------------|---|
| Form WW-4A | Notice of Application to Plug and Abandon Well (1 copy) |
| Form WW-4B | Application for a Permit to Plug and Abandon (1 copy) |
| Well Location Plat | Certified Copy of WVDEP Well Location Plat |
| Form WW-9 | Reclamation Plan and Site Registration Application (1 copy) |

Copies of the Well Permit Application and Voluntary Statement of No Objection have been sent to the appropriate surface owner(s) and coal operator(s), owner(s) and lessee(s) for signature.

Please make necessary recommendations and sign the Reclamation Plan before forwarding to Chief, Division of Oil & Gas, 601 57th Street, Charleston, WV 25304

If you have any questions or need additional information, please contact me at 412-249-3850.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kenneth L. Marcum'.

Kenneth L. Marcum
Regulatory Supervisor