



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

December 12, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3902858, 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: 15-638
Farm Name: BOWERS, WILLIAM
API Well Number: 47-3902858
Permit Type: Plugging
Date Issued: 12/12/2014

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 November 4, 2014
2) Operator's
Well No. William Bowers #15
3) API Well No. 47-039 - 02858

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 / Waste disposal /
(If "Gas, Production or Underground storage) Deep / Shallow

5) Location: Elevation 1,381.20 Watershed Laurel Fork of Witcher Creek
District Cabin Creek County Kanawha Quadrangle Cedar Grove

6) Well Operator Cabot Oil & Gas Corporation 7) Designated Agent Whitney Johnson
Address Five Penn Center West, Ste. 401 Address P.O. Box 450
Pittsburgh, PA 15276 Glasgow, WV 25086

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Terry Urban Name Shreve's Well Service
Address P.O. Box 1207 Address 3473 Triplett Road
Clendenin, WV 25045 Spencer, WV 25275

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

*See Change to
Well con fig*

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

Work order approved by inspector *Terry Urban* Date 11-17-14

Bowers #15
API # 47 - 039 - 02858
PLUGGING PROCEDURE

Current Configuration

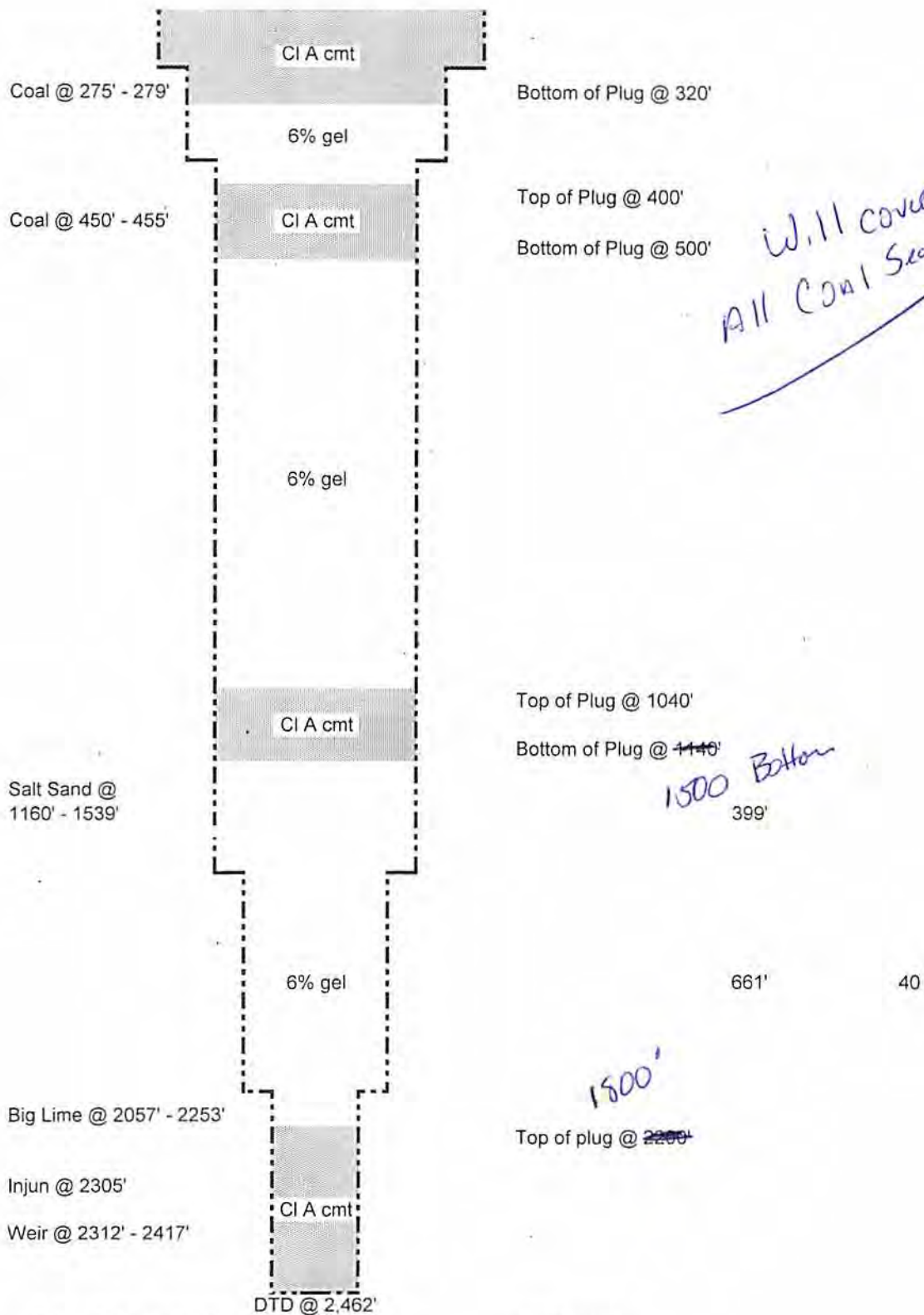
DTD @ 2462'
 13" conductor @ 10'
 10" casing @ 119'
 8-5/8" casing @ 1539'
 6-5/8" casing @ 2089'
 2" tubing @ 2462' with anchor packer set @ 2162'
 Water @ NA
 Coal @ 275' - 279' & 450' - 455'
 Weir @ 2312' to 2417' with gas show @ NA
 Injun @ 2305'
 Big Lime @ 2057' - 2253'

PROCEDURE

1. Contact Glasgow Office a minimum of 48 hours prior to starting work.
2. Contact State Inspector a minimum of 24 hours prior to starting work.
3. Lay 2" line from wellhead to pit/tank and stake down securely.
4. MIRU service rig and blow down well. Have vacuum truck available to catch any fluids circulated from well.
5. Unpack wellhead.
6. Swab tubing dry.
7. Pull 2" tubing.
8. TIH with 2-3/8" work string to TD.
9. MIRU Cement Company and pump 78 ¾ bbls 6% Gel followed by 75 sks of Class A cement for plug 1 from TD to ~~2200'~~ ^{1500'}.
10. Displace w/ 9 1/4 bbls of 6% Gel.
11. TOOH with work string.
12. Pull 6-5/8" casing string.
13. Spear into 8-5/8" Casing and Pull 8-5/8" Casing. *Plug 2 1500 - 1040'*
14. TIH with work string to ~~1140'~~ ^{1500'} and pump 52 1/2 bbls 6% Gel followed by 46 ¼ sks of Class A cement for plug 2 from ~~1140'~~ ^{1500'} to 1040'.
15. Displace w/ 4 1/4 bbls of 6% Gel.
16. Pull work string up to 500' and pump 7 ¾ bbls 6% Gel followed by 55 cubic feet of expanding cement (46 1/2 sks Class A cement) for plug 3 from 500' to 400'.
17. Displace w/ 1 ¾ bbls of 6% Gel.
18. TOOH with work string.
19. Pull 10" casing, and 13" conductor.
20. TIH with work string to 320' and pump 175 1/2 cubic feet of expanding cement (148 ¾ sks Class A cement) for plug 4 from 320' to surface.
21. Displace w/ 1 bbl of 6% Gel.
22. TOOH with work string and lay down.
23. RDMO Cementing Company.
24. Place monument as required by law on top of well bore.
25. Reclaim well site.

*See Change to
 well Config.
 August 11-17-14*

BOWERS #15
API 47-039-02858
Proposed



Schematic is not to scale

A. Wolfe 10/22/14

KAP.
039(2858)

#638

BOWERS NO. 15 WELL

Well # 638

Conductor		10 ft.
Coal	275	279
Coal	450	455
Little Dunkard Sand	580	620
Big " "	715	790
First Salt Sand	1160	1292
Second Salt Sand	1294	1370
Third Salt Sand	1405	1539
Maxon Sand	1753	1903
Little Lime	1925	1945
Lime	1945	1980
Black Lime	1980	2057
Big Lime	2057	2253
Top of Squaw	2300	
Gas at	2312	
Second Pay	2353	
Third Pay	2417	
Total Depth	2462	

10" Casing 119' Left in well
8 $\frac{1}{2}$ " " 1539' Parted - 30 jts. pulled out
6-5/8" 2089' Left in well
2" Tubing Packer set at 2162'

Completed Oct. 9, 1919

1500000

12/12/14

3902858A

WW-4A
Revised 6-07

1) Date: November 4, 2014

2) Operator's Well Number
William Bowers #15

3) API Well No.: 47 - 039 - 02858

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>Robin Land Company, LLC</u>	Name <u>See Attached Sheet</u>
Address <u>500 Lee Street East, Suite 900</u> <u>Charleston, WV 25301</u>	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Robin Land Company</u>
(c) Name _____	Address <u>500 Lee Street East, Suite 900</u> <u>Charleston, WV 25301</u>
Address _____	Name _____
Address _____	Address _____
6) Inspector <u>Terry Urban</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 1207</u> <u>Clendenin, WV 25045</u>	Name <u>Unknown</u>
Telephone <u>(304) 549-5915</u>	Address _____

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, Suite 401
Pittsburgh, PA 15276
 Telephone (412) 249-3850

COMMONWEALTH OF PENNSYLVANIA
 Notarial Seal
 Constance C. Carden, Notary Public
 McDonald Boro, Washington County
 My Commission Expires Nov. 16, 2017
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Subscribed and sworn before me this 4th day of November
Constance C. Carden Notary Public
 My Commission Expires November 16, 2017

RECEIVED
 Office of Oil and Gas
 NOV 06 2014

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.

12/12/14

COAL OPERATOR(S)
WILLIAM BOWERS #15
API # 47-039-02858

Midland Trail Energy, LLC
P.O. Box 366 ✓
Tad, WV 25201

Spartan Mining Co. ✓
P.O. Box 150
Cannelton, WV 25036

Catenary Coal Company, LLC ✓
63 Corporate Centre Drive
Scott Depot, WV 25560

Upper Kanawha Valley Development Corp ✓
400 Patterson Ln. #200
Charleston, WV 25311

7013 3020 0001 0841 7364

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Total	

PITTSBURGH PA 15204 MONROE BRANCH
 NOV - 5 2014
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Sent To: **Catenary Coal Company, LLC**
 63 Corporate Centre Drive
 Scott Depot, WV 25560
 W. Bowers #15 P&A

PS Form 3800, August 2006

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Sent To: **Upper Kanawha Valley Development Corp**
 400 Patterson Ln. #200
 Charleston, WV 25311
 W. Bowers #15 P&A

PS Form 3800, August 2006

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Sent To: **Midland Trail Energy, LLC**
 P.O. Box 366
 Tad, WV 25201
 W. Bowers #15 P&A

PS Form 3800, August 2006

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Total	

PITTSBURGH PA 15204 MONROE BRANCH
 NOV - 5 2014
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Sent To: **Spartan Mining Co.**
 P.O. Box 150
 Cannelton, WV 25036
 W. Bowers #15 P&A

PS Form 3800, August 2006

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Restricted Delivery Fee (Endorsement Required)	
Total	

PITTSBURGH PA 15204 MONROE BRANCH
 NOV - 5 2014
 Postmark Here

Siler 19-17

Sent To: **Terry Urban**
 P.O. Box 1207
 Clendenin, WV 25045
 W. Bowers #15 P&A

PS Form 3800, August 2006

7013 3020 0001 0841 7395

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

PITTSBURGH PA 15204 MONROE BRANCH
 NOV - 5 2014
 Postmark Here

RECEIVED
 Office of Oil and Gas
 NOV 06 2014
 WV Department of Environmental Protection

Sent To: **Robin Land Company, LLC**
 500 Lee Street East, Suite 900
 Charleston, WV 25301
 W. Bowers #15 P&A

PS Form 3800, August 2006

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 _____

Watershed (HUC 10) Laurel Fork of Witcher Creek Quadrangle Cedar Grove

Elevation 1,381.20' County Kanawha District Cabin Creek

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

Will a pit be used for drill cuttings? Yes _____ No X *TW*

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes _____ No X 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 No treated pit wastes will be produced)

Will closed loop system be used? N/A

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. no drilling proposed

-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. No cuttings produced during plugging operation

-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

Company Official Title Regulatory Supervisor

Subscribed and sworn before me this 4th day of November, 20 14

Constance C. Carden

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Constance C. Carden, Notary Public
McDonald Boro, Washington County
My Commission Expires 11/16/2014

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

My commission expires 11/16/2013

Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH 6.5

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 at 1000 to 1500 Tons/acre

Seed Mixtures

Area I			Area II		
Seed Type	lbs/acre		Seed Type	lbs/acre	
Grain Rye - 100	Red Clover - 5	Fescue - 40	Grain Rye - 100	Red Clover - 5	Fescue - 40
Annual Rye - 20	White Clover - 5		Annual Rye - 20	White Clover - 5	
Perennial Rye - 10	Alta Sweet Clover - 5		Perennial Rye - 1	Alta Sweet Clover - 5	
Yellow Clover - 5	Birdsfoot Trefoil - 10		Yellow Clover - 5	Birdsfoot Trefoil	

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

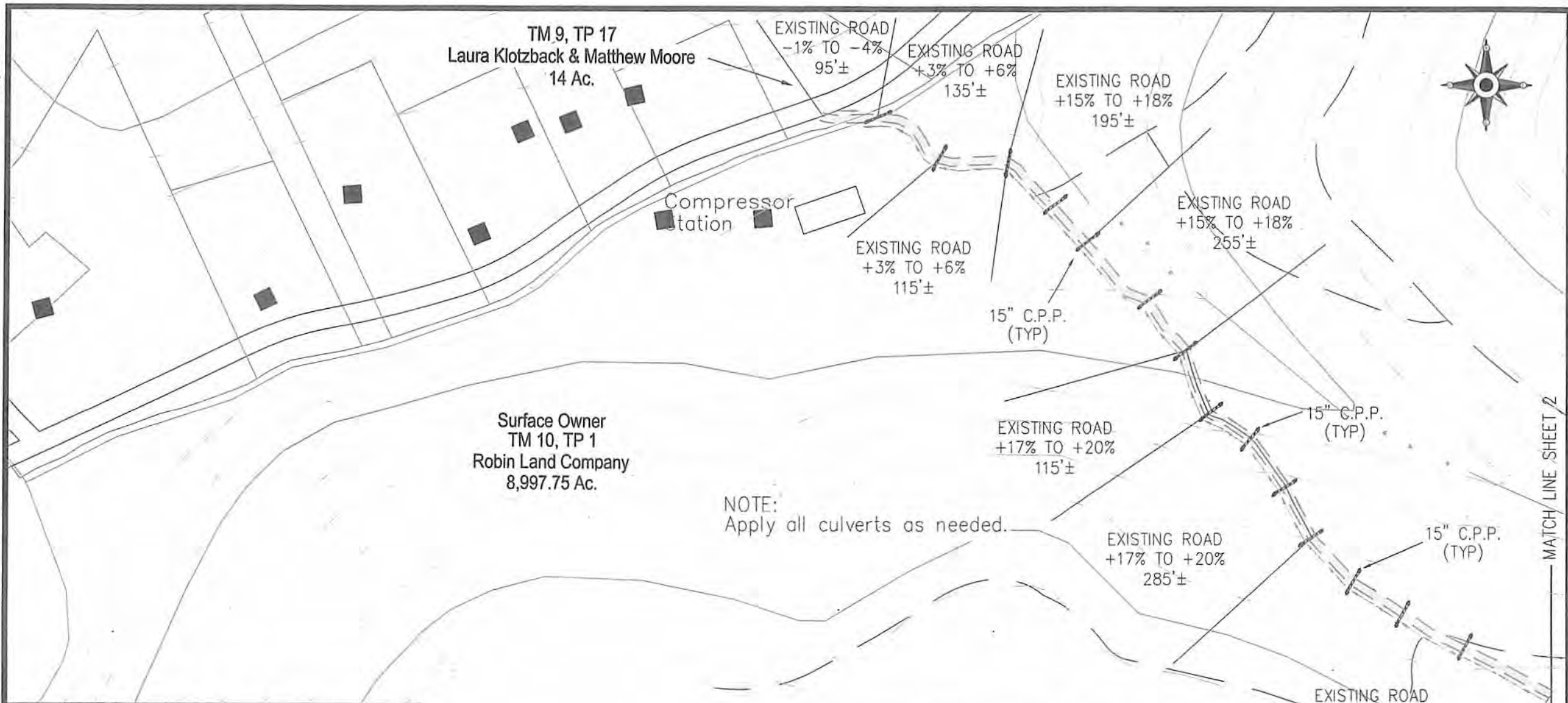
Plan Approved by: *August Miller*

Comments: _____

Title: *Imparta Arli CAS* Date: *11-17-14*

Field Reviewed? Yes No

3902858A



NOTE:
Apply all culverts as needed.

MATCH LINE SHEET 2

 **Cabot Oil & Gas Corporation**

WILLIAM BOWERS 15
CONSTRUCTION & RECLAMATION SITE PLAN

SITUATED ON THE WATERS OF LAUREL FORK OF WITCHER CREEK
CABIN CREEK DISTRICT, KANAWHA COUNTY, WV
CEDAR GROVE QUADRANGLE

SHEET NUMBER 1 OF 3	SCALE: 1"=200'	DRAWN BY: J.M. JONES	DATE: 04/01/14	CHK'D. BY: DKC
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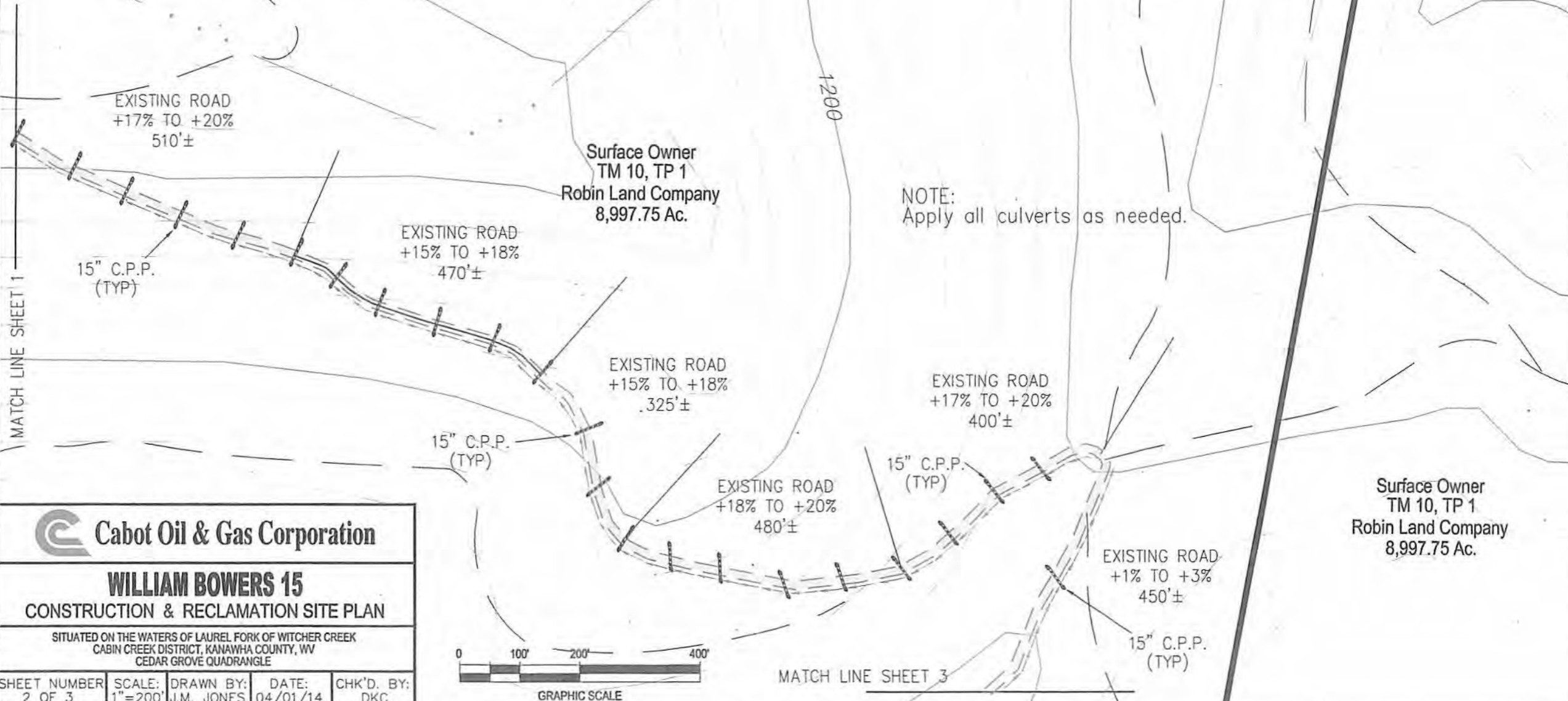


DRAWING LEGEND	
PROPOSED ROAD	ROAD DITCH
EXISTING ROAD	GAS LINE
STRAW BALES	FENCE LINE
SILT FENCE	ROCK OUTCROP
BRUSH BARRIER	WATER WELL
TREE LINE	HOUSE/STRUCTURE
ROCK RIP RAP	UTILITY POLE
CROSS DRAIN	SPRING
CULVERT	WET SPOT
DRILLING PIT	PIT WASTE APP. AREA

3902876P



DRAWING LEGEND			
PROPOSED ROAD		ROAD DITCH	
EXISTING ROAD		GAS LINE	
STRAW BALES		FENCE LINE	
SILT FENCE		ROCK OUTCROP	
BRUSH BARRIER		WATER WELL	
TREE LINE		HOUSE/STRUCTURE	
ROCK RIP RAP		UTILITY POLE	
CROSS DRAIN		SPRING	
CULVERT		WET SPOT	
DRILLING PIT		PIT WASTE APP. AREA	



Surface Owner
TM 10, TP 1
Robin Land Company
8,997.75 Ac.

Surface Owner
TM 10, TP 1
Robin Land Company
8,997.75 Ac.

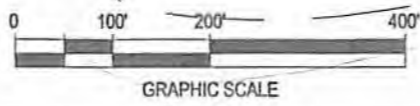
NOTE:
Apply all culverts as needed.

Cabot Oil & Gas Corporation

WILLIAM BOWERS 15
CONSTRUCTION & RECLAMATION SITE PLAN

SITUATED ON THE WATERS OF LAUREL FORK OF WITCHER CREEK
CABIN CREEK DISTRICT, KANAWHA COUNTY, WV
CEDAR GROVE QUADRANGLE

SHEET NUMBER 2 OF 3	SCALE: 1"=200'	DRAWN BY: J.M. JONES	DATE: 04/01/14	CHK'D. BY: DKC
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MATCH LINE SHEET 3

MATCH LINE SHEET 1

3902458P

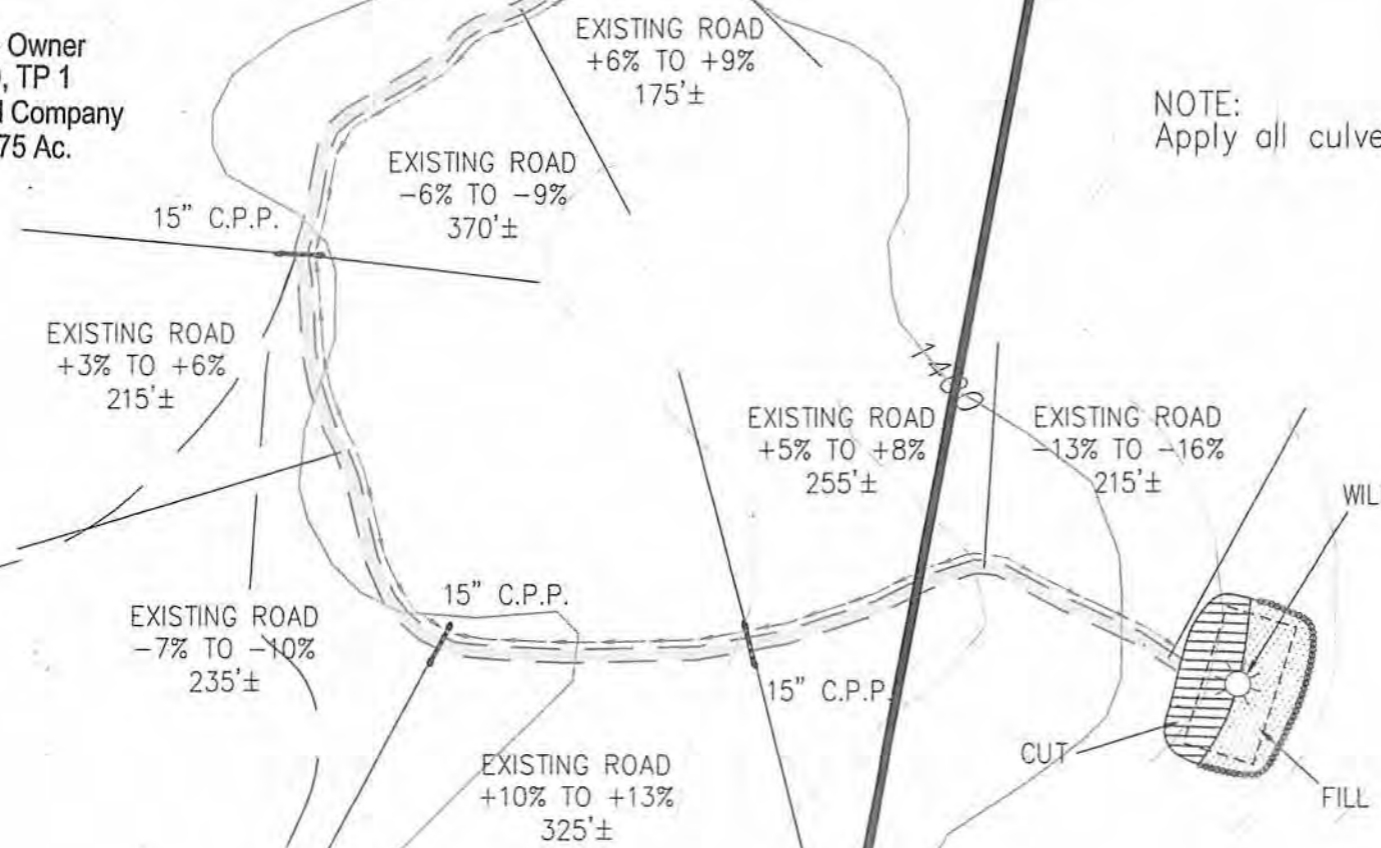
MATCH LINE SHEET 2



Surface Owner
TM 10, TP 1
Robin Land Company
8,997.75 Ac.

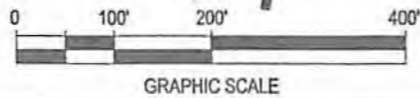
NOTE:
Apply all culverts as needed.

Surface Owner
TM 10, TP 1
Robin Land Company
8,997.75 Ac.



Note:
Tanks will be used instead of drilling pit(s),
and may be adjusted to the most
environmental safe site to meet the
requirements of the WVDEP.

DRAWING LEGEND		
PROPOSED ROAD	ROAD DITCH	
EXISTING ROAD	GAS LINE	
STRAW BALES	FENCE LINE	
SILT FENCE	ROCK OUTCROP	
BRUSH BARRIER	WATER WELL	
TREE LINE	HOUSE/STRUCTURE	
ROCK RIP RAP	UTILITY POLE	
CROSS DRAIN	SPRING	
CULVERT	WET SPOT	
DRILLING PIT	PIT WASTE APP. AREA	



WILLIAM BOWERS 15				
CONSTRUCTION & RECLAMATION SITE PLAN				
SITUATED ON THE WATERS OF LAUREL FORK OF WITCHER CREEK CABIN CREEK DISTRICT, KANAWHA COUNTY, WV CEDAR GROVE QUADRANGLE				
SHEET NUMBER 3 OF 3	SCALE: 1"=200'	DRAWN BY: J.M. JONES	DATE: 04/01/14	CHK'D. BY: DKC

GENERAL NOTES:

THIS DRAWING REPRESENTS 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 UNFORESEEN CIRCUMSTANCES, THE AS-BUILT LOCATION OF THESE STRUCTURES MAY VARY SLIGHTLY FROM THE LOCATION SHOWN ON THE ATTACHED DRAWINGS.

ALL ROADS SHOWN THEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH GUIDELINES AND REQUIREMENTS OF WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL.

ALL CULVERTS SHOWN ON THIS DRAWING ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.

DITCH LINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL. HOWEVER PORTIONS OF THE EXISTING/ PROPOSED ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.

SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF EITHER STRAW BALES, SILT FENCES OR OTHER MEASURES OUTLINED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAINS INLETS AS REQUIRED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND 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.

A SEDIMENT BARRIERS OF EITHER BRUSH, STRAW BALES, FILTER FENCE, ETC. WILL BE INSTALLED AND MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DRAINAGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.

ALL NECESSARY TIMBER OR BRUSH WILL BE REMOVED FROM ROUTE OF THE ROADWAY AND LOCATION BY CLEANING AND GRUBBING ACTIVITIES. ANY SALVAGEABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER OR BRUSH WILL BE CUTUP AND WIND ROWED BELOW THE OUTSLOPE OF THE CONSTRUCTION AREAS TO BE UTILIZED AS A SEDIMENT BARRIER.

SEPARATE PERMITS WILL BE OBTAINED FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ALL POINTS OF INGRESS AND EGRESS FROM COUNTY AND STATE ROADS. THESE INGRESS AND EGRESS POINTS WILL BE MAINTAINED IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS AND EGRESS POINTS OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS.

ALL CULVERTS SHOWN ON THE ATTACHED DRAWINGS ARE TO BE CONSIDERED PERMANENT AND WILL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIP RAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUT FALL OF ANY ROADWAY CULVERT(S) WHICH ARE NOT LOCATED IN A STREAM OR CREEK.

PERMANENT CROSS DRAINS OR WATER BARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH AS-BUILT ROADWAY SLOPES AND TABLE 11-4 OF THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, LOCATION, ROAD/LOCATION SLOPES AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES.

THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO THE MOST ENVIRONMENTAL SAFE SITE TO MEET THE REQUIREMENTS OF THE WVDEP.

CONTRACTORS NOTE:

IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEWERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY/OR CONSTRUCTION ACTIVITIES. DIG WITH C.A.R.E. CALL MISS UTILITY 1-800-245-4848.

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

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



1-800-245-4848

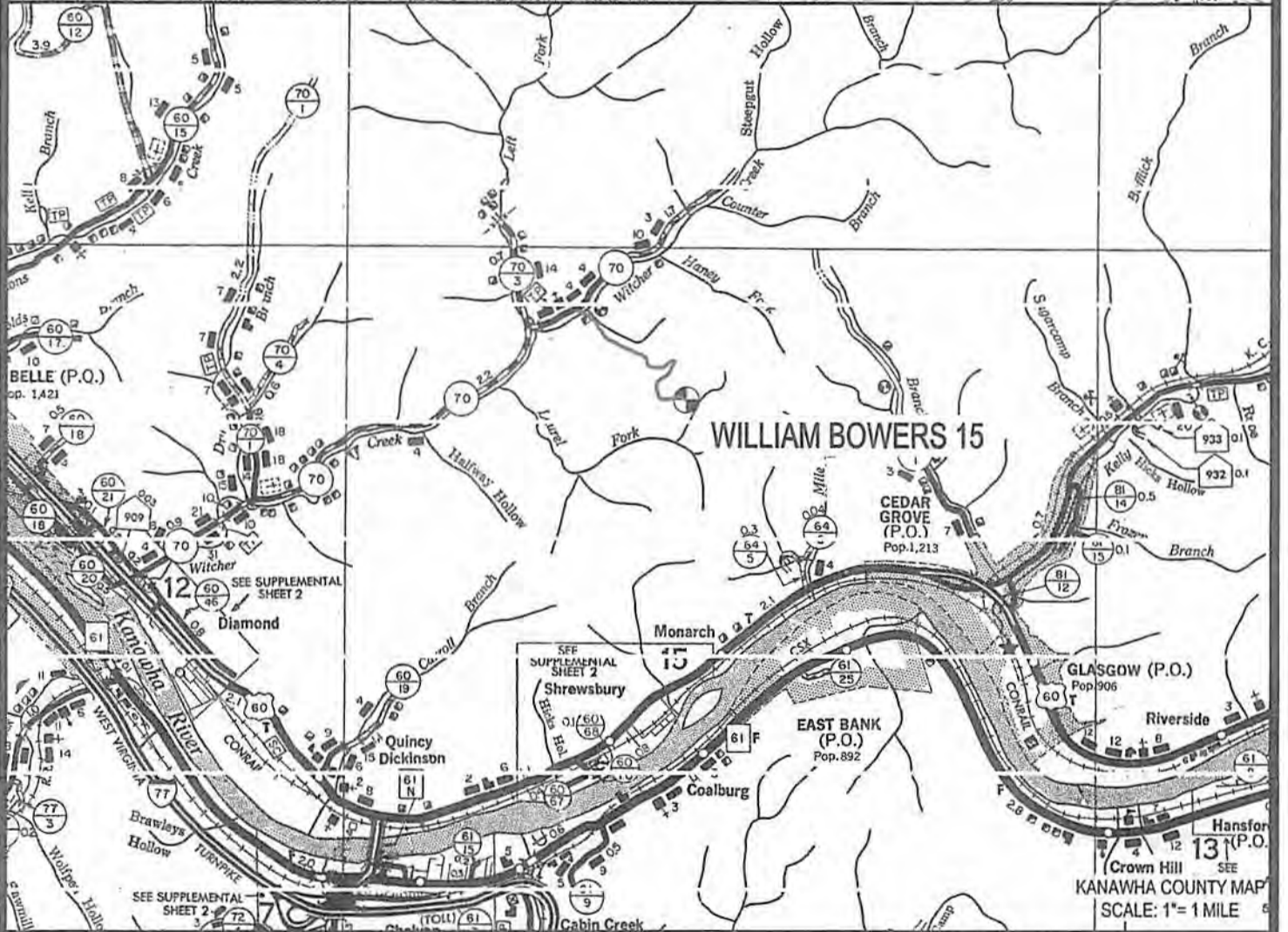
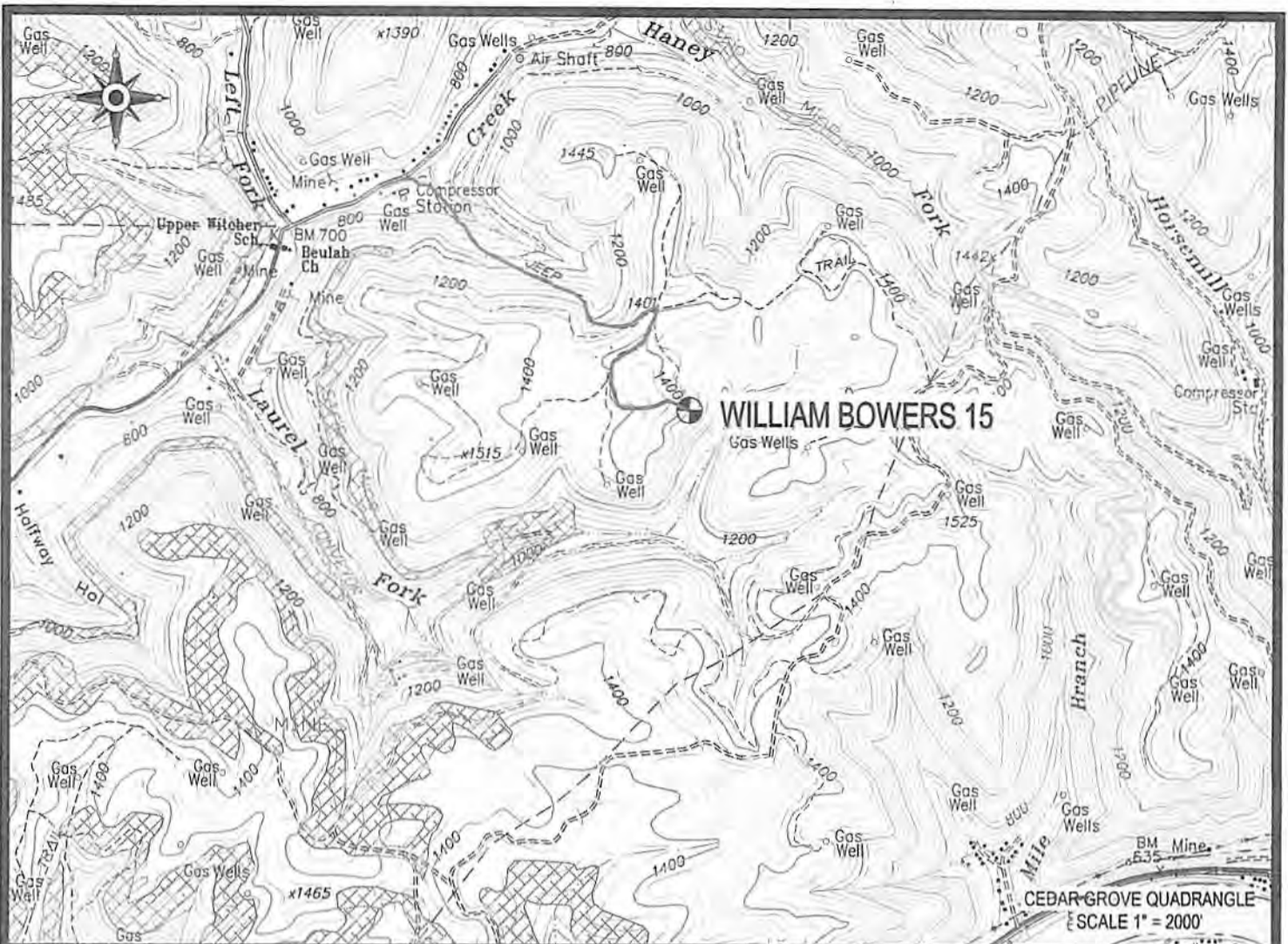
DRAWING LEGEND

- PROPOSED ROAD
- EXISTING ROAD
- STRAW BALES
- 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

DRIVING DIRECTIONS FOR WILLIAM BOWERS 15


- 1.) FROM CHARLESTON, WV, GO EAST ON U.S. RT. 60 FOR APPROXIMATELY 12.5± MILES TO SECONDARY ROUTE 70.
- 2.) TURN LEFT ONTO SECONDARY ROUTE 70 AND GO APPROXIMATELY 3.5± MILES TO THE BEGINING OF THE ACCESS ROAD LOCATED ON THE RIGHT-HAND SIDE OF THE ROAD.
- 3.) FROM THE AFOREMENTIONED SITE, FOLLOW THE EXISTING ROAD FOR APPROXIMATELY 1.2± MILES TO THE EXISTING WELL SITE IN THE FIELD AS SHOWN ON THE "CONSTRUCTION AND RECLAMATION PLAN".

12/12/14



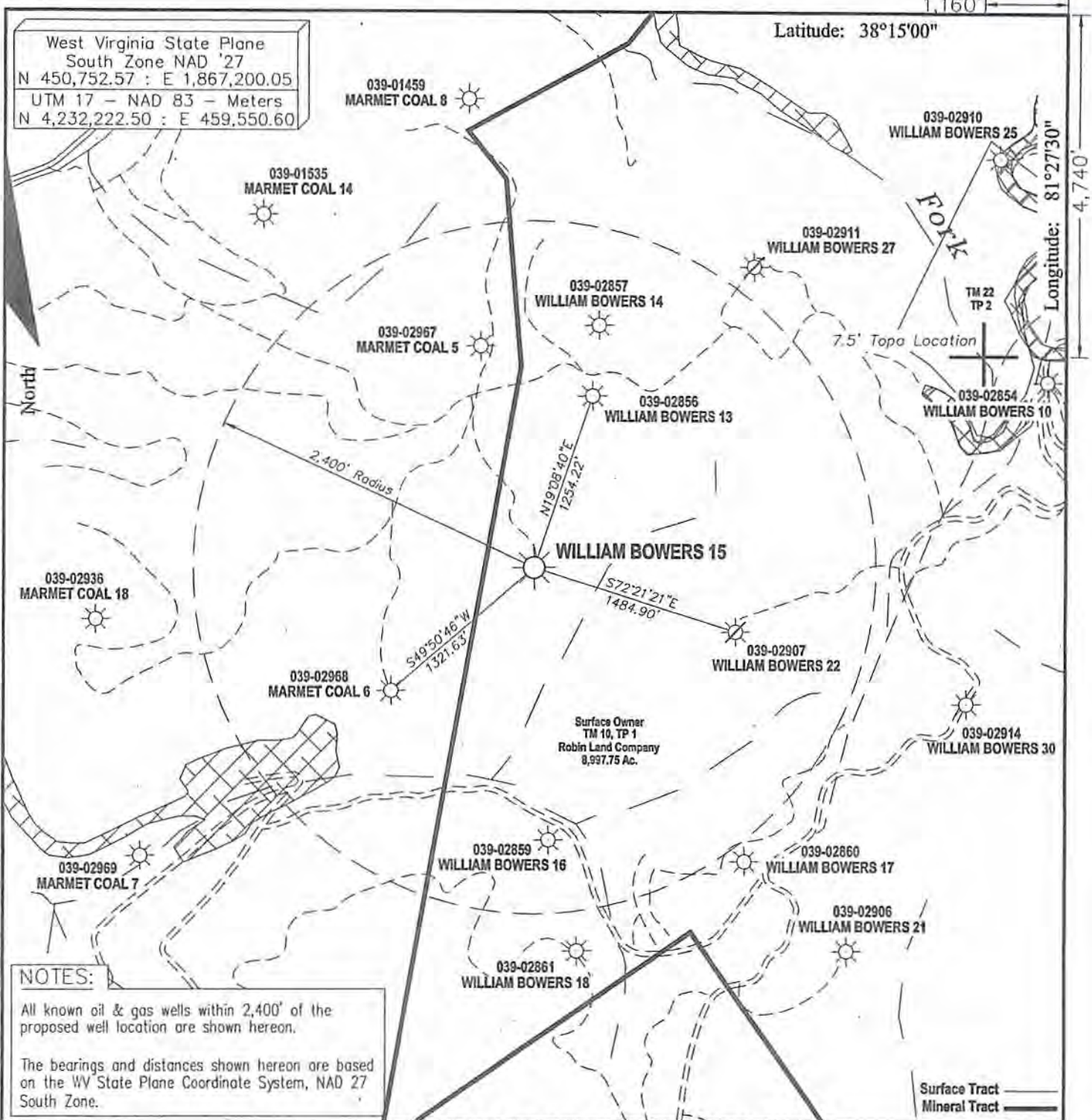
 Cabot Oil & Gas Corporation

WILLIAM BOWERS 15
LOCATION MAP 12/12/14

 **CUNNINGHAM**
LAND SURVEYING & MAPPING SERVICES, LLC
• 5213 STEPHEN WAY •
• CROSS LANES, WEST VIRGINIA 25313 •
• VOICE (304) 561-4129 • FAX (304) 776-0703 •
• E-MAIL ADDRESS • DRCUNNINGHAM@SUDDENLINK.NET •

LOCATED ON THE WATERS OF LAUREL FORK
OF WITCHER CREEK
CABIN CREEK DISTRICT, KANAWHA COUNTY, WV
CEDAR GROVE 7.5' QUADRANGLE

PROJECT NO. CABOT	DWG. BOWERS 15 LOC
DATE: 04/01/14	SCALE: AS NOTED
DRAWN BY: J. JONES	CHK'D BY: D.K.C.
FILE: C:\PROJECT FOLDER\CABOT	



NOTES:
 All known oil & gas wells within 2,400' of the proposed well location are shown hereon.
 The bearings and distances shown hereon are based on the WV State Plane Coordinate System, NAD 27 South Zone.

FILE #:
 DRAWING #: Bowers 15. dwg
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY: 1 : 12,729
 PROVEN SOURCE OF ELEVATION: Global Positioning System (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 ENVIROMENTAL PROTECTION.
 Signed: Don K. Cunningham
 R.P.E.: _____ L.L.S.: 701



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: April 1, 2014
 OPERATOR'S WELL #: William Bowers 15
 API WELL #: 47 039 02858
 STATE COUNTY PERMIT

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

WATERSHED: Laurel Fork of Wilcher Creek ELEVATION: 1,381.20'
 COUNTY/DISTRICT: Kanawha / Cabin Creek QUADRANGLE: Cedar Grove
 SURFACE OWNER: Robin Land Company ACREAGE: 8,997.75
 OIL & GAS ROYALTY OWNER: William Bowers Estate ACREAGE: 1,532
 LEASE #: 47-0618 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: _____ ESTIMATED DEPTH: _____
 WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Whitney Johnson
 Address Five Penn Center West, Suite 401 Address P.O. Box 450
 City Pittsburgh State PA Zip Code 15276 City Glasgow State WV Zip Code 25086

12/12/14

3902858 P



CERTIFIED MAIL

November 4, 2014

Terry Urban
P.O. Box 1207
Clendenin, WV 25045

Re: William Bowers #15
Cabin Creek District, Kanawha County, WV
API # 47-039-02858
Written Application to plug and abandon wellbore

Dear Mr. Urban:

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,

Kenneth L. Marcum
Regulatory Supervisor



November 4, 2014

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

RE: William Bowers #15
Cabin Creek District, Kanawha County, WV
API # 47-039-02858
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
NOV 06 2014
WV Department of
Environmental Protection