



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 02, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4500993, 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: B-5 1183
Farm Name: LAWSON HEIRS
API Well Number: 47-4500993
Permit Type: Plugging
Date Issued: 12/02/2014

Promoting a healthy environment.

12/05/2014

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 October 22, 2014
2) Operator's
Well No. Lawson Heirs B-5
3) API Well No. 47-045 - 0099

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 675.63' Watershed Crawley Creek of the Guyandotte River
District Guyan County Logan Quadrangle Chapmanville

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 Ralph Triplett Name Shreve's Well Service
Address 5539 McClellan Hwy Address 3473 Triplett Road
Branchland, WV 25506 Spencer, WV 25275

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

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

Work order approved by inspector Ralph D. Triplett Date October 27, 2014

12/05/2014

Lawson Heirs B-5

API # 47 – 045 - 00993

PLUGGING PROCEDURE

Current Configuration

TD @ 1842'
 10-3/4" casing – depth unknown
 8-5/8" casing not mentioned in well record – depth unknown
 7" casing – depth unknown
 3-1/2" tubing (possibly set on packer) – depth unknown
 2" tubing (possibly set on packer) – depth unknown
 No fresh water reported
 No coal reported
 Berea @ 1897' – 1909'
 Big Lime with gas show @ 1260' – 1283'

OK
RDT

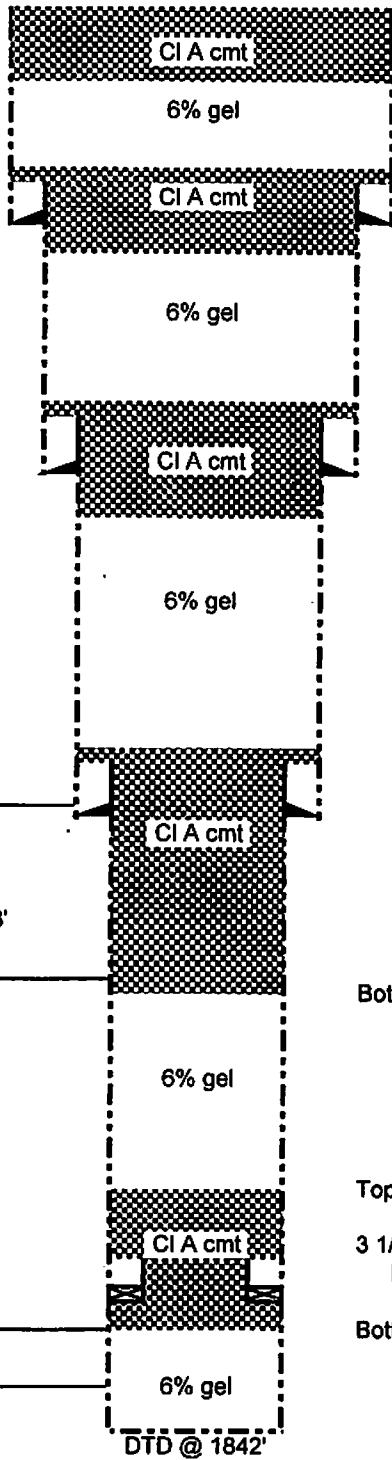
PROCEDURE

1. Contact Danville 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. Pull 2" tubing and determine depth of 3-1/2" tubing. If deeper than 1500' go to step 13.
7. If depth of 3-1/2" tubing is less than 1500', TIH with 2 3/8" work string to 1810'.
8. Pump 20 bbls 6% gel followed by 45 sks of Class A cement for plug 1 from 1810' to 1600'.
9. Displace w/ 6 bbls of 6% gel.
10. TOOH with work string. Let cement plug set for a minimum of eight hours.
11. Pull 3-1/2" tubing. If unable to pull, run freepoint on tubing, cut tubing above freepoint, and POOH with tubing.
12. Go to step 18.
13. Pull 3-1/2" tubing. If unable to pull, run freepoint on tubing, cut tubing above freepoint, and POOH with tubing.
14. TIH with 2 3/8" work string to 1810'.
15. Pump 50 bbls 6% gel followed by a minimum of 45 sks of Class A cement for plug 1 from 1810' to 1600'. The amount of cement required must cover the top of 3-1/2" tubing cut by 50'.
16. Displace w/ 6 bbls of 6% gel.
17. TOOH with work string. Let cement plug set for a minimum of eight hours.
18. Pull 7" casing. If unable to pull, run freepoint, cut casing above freepoint, and POOH with casing.
19. TIH with 2 3/8" work string to 1300'.
20. MIRU Cement Company and pump 20 bbls 6% gel followed by 80 sks of Class A cement for plug 2 from 1300' to 1000'. Recalculate cement requirement if TOC doesn't cover the 7" casing cut by 50'.
21. Displace w/ 3 1/2 bbls of 6% gel.
22. TOOH with work string.
23. Pull 8-5/8" casing. If able to pull, go to step 29. If unable to pull, go to next step.
24. Run freepoint on 8-5/8" casing, cut casing above freepoint, and POOH with casing.
25. TIH with 2 3/8" work string to 50' below 8-5/8" casing.

26. Pump a minimum of 45 sks of Class A cement for plug from 50' below the 8-5/8" casing to 50' above casing cut. The amount of cement required must cover the top of 8-5/8" casing cut by 50'.
27. Displace w/ 2 bbls of 6% gel.
28. TOOH with work string.
29. Pull 10-3/4" casing. If able to pull, go to next step. If unable to pull, go to step 31.
30. TIH with 2 3/8" work string to 800' and pump 50 bbls 6% gel. Go to step 35.
31. Run freepoint on 10-3/4" casing, cut casing above freepoint, and POOH with casing.
32. TIH with 2 3/8" work string to 50' below 10-3/4" casing.
33. Pump 30 bbls 6% gel followed by a minimum of 70 sks of Class A cement for plug from 50' below 10-3/4" casing to 50' above casing cut. The amount of cement required must cover the top of 10-3/4" casing cut by 50'.
34. Displace w/ 1 bbl of 6% gel.
35. Pull work string up to 200' and pump 130 sks of Class A cement for cement plug to surface.
36. TOOH with work string and lay down.
37. RDMO Cementing Company.
38. Place monument as required by law on top of well bore.
39. Reclaim well site.

Lawson Heirs B-5
API 47-045-00993
PROPOSED CONFIGURATION

No water reported
No coal reported



13-3/8" installed over exposed 8-5/8"
13-3/8" grouted w/ 20 sx cement
Bottom of plug 5 @ 200'

Top of plug 4 @ 50' above 10-3/4" cut

10-3/4" Casing cut & pulled
Bottom of plug 4 @ 50' below 10-3/4" cut

Top of plug 3 @ 50' above 8-5/8" cut

8-5/8" Casing cut & pulled
(not mentioned in well record)
Bottom of plug 3 @ 50' below 8-5/8" cut

Top of plug 2 @ 1000'

7" Casing cut & pulled

Bottom of plug 2 @ 1300'

Top of plug 1 @ 1600'

3 1/2" Tubing cut & pulled
Possibly set on packer

Bottom of plug 1 @ 1810'

1050'
1283'

Big Lime
w/ gas @ 1260' - 1283'

1807'
1820'

Berea

DTD @ 1842'

RDT

Schematic is not to scale

T. Ott 08/13/14

4500993P

OWENS, LIBBEY-OWENS GAS DEPARTMENT

RECORD OF: New Drilling - Deepening - Repairing: **LOG-993**

well purchased from Cumberland & Berkeley 1-30-63

Lease No. **3039** Well No. **5** Tract **Kawson Heinz, Tr. "B" (Dimes #1)** Serial Well No. **1183**

Map Square **3-144** Acres **3.65.85** District **Chapmanville** County **Logan** State **WVa**

Permit No. **-----** Elevation **-----** Work done by: **Called by Wideman Oil & Gas**

Driller's Names:

Commenced Rigging Up Well Completed
 Commenced Drilling Commenced Producing
 Completed Drilling Abandoned

CONDUCTOR, CASING AND TUBING					PACKERS Kind	CLOSED IN PRESSURE		
SIZE	WEIGHT	NO. OF JOINTS	USED IN DRILLING	LEFT IN WELL		Size	CASING HEAD	CASING
10 3/4					Set	1 Min.		196
7					Kind	2 Min.		43
3					Size	3 Min.		50
2					Set	4 Min.		
					Perforations	5 Min.		52
						10 Min.		
						7 1/2 Hours		
						Hours		

Shot **19** from **-----** to **-----** with **-----** tamped with **-----**
 Open flow before: **MCF;** **15** Min. after: **MCF;** **-----** hours after: **MCF**
 Shot **19** from **-----** to **-----** with **-----** tamped with **-----**
 Open flow before: **MCF;** **15** Min. after: **MCF;** **-----** hours after: **MCF**
 Acid or other treatment: **-----**

OIL WELL Initial test: **-----** barrels per **-----** flowing **-----** barrels per **-----** pumping
 GAS WELL Open flow: **-----** **Big Line** * Total **33/** MCF

DRILLERS' RECORD **+ 1 hr. test made in 1962**

FORMATION	COLOR	HARDNESS	TOP	BOTTOM	THICKNESS	REMARKS
Gravel			0	300	300	
Sand			300	400	100	
Salt Sand			400	660	260	
Red Rock			660	715	55	
Sand			715	725	10	
Slate & shell			725	740	115	
Green Sand			740	775	35	
Light Lime			775	1071	296	
Placid sand			1071	1080	9	
Big lime			1080	1282	202	Gas 1260 to 1282'
Tan Sand			1282	1295	13	
Red Lime			1295	1310	15	
Slate & shell			1310	1325	15	
Grey sand			1325	1475	150	
Slate			1475	1675	200	
Slate & shell			1675	1757	82	
Brown shale			1757	1807	50	
Brown sand grit			1807	1822	15	
Slate			1822	1842	20	

Tests made in 1947
 Open flow **521** MCF

Tests made in August 1962:
 This well called **the Sewley** **1962** **500**
 company of the **United Fuel** **127** **110**
 low pressure at well **22**
 also well
 1/2 hr test **526** MCF
 1 hr test **526** MCF
 well **22** in
 1 min test **526** MCF

12/05/2014

72 hr test pressure: **22** #
 This well tests through **3" line** to the **United**
Fuel **meter** **house** **station** **127** **on** **Sewley** **500**

This well has **2" and 3" tubing** and
7" and 10 3/4" casing **strings**

B-1 045-0993

#1183 Lawson Heirs "B" #5

DINGESS #1

GRAVEL		37
GRAVEL	37	300
SAND	300	400
SALT SAND	400	660
RED ROCK	660	715
SAND	715	775
SLATE & SHELL	775	960
MAXON SAND	960	995
LITTLE LINE	1036	1041
PENCIL CANE	1041	1050
BIG LINE	1050	1283
GAS AT 1260 to 1283		
INJUN SAND	1283	1295
RED ROCK	1295	1310
SLATE & SHELLS	1310	1375
GREY SAND	1375	1475
SLATE, BLACK	1475	1675
SLATE & SHELL	1675	1757
BROWN SHALE	1757	1807
BEREA GRIT SAND	1807	1820
SLATE	1820	1842
TOTAL DEPTH		1842

open flow 1947
521,250 MCF

45 00993P

WW-4A
Revised 6-07

1) Date: October 22, 2014
2) Operator's Well Number
Lawson Heirs B-5

3) API Well No.: 47 - 045 - 00993

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

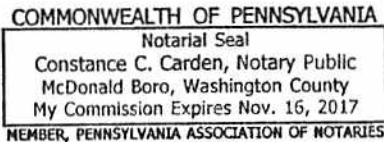
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>John I. Carter, et al</u>	Name <u>Not Operated</u>
Address <u>HC 74 Box 3251</u>	Address _____
<u>Chapmanville, WV 25508</u>	_____
(b) Name <u>John A. Belcher</u>	(b) Coal Owner(s) with Declaration
Address <u>HC 74 Box 3194</u>	Name <u>Lawson Heirs, Inc. c/o Hodges, Jones & Mabry PC</u>
<u>Chapmanville, WV 25508</u>	Address <u>P.O. Box 648</u>
(c) Name _____	<u>Wytheville, VA 24382</u>
Address _____	Name _____
_____	Address _____
6) Inspector <u>Ralph Triplett</u>	(c) Coal Lessee with Declaration
Address <u>5539 McClellan Hwy</u>	Name <u>Hica Corporation</u>
<u>Branchland, WV 25506</u>	Address <u>P.O. Box 800</u>
Telephone <u>(304) 389-0350</u>	<u>Wise, VA 24293</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
 Its: Regulatory Supervisor
 Address Five Penn Center West, Suite 401
Pittsburgh, PA 15276
 Telephone (412) 249-3850

RECEIVED
Office of Oil and Gas

Subscribed and sworn before me this 22nd day of October

Constance C. Carden

Notary Public

My Commission Expires November 16, 2017

OCT 23 2014

WV Department of Environmental Protection

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.

12/05/2014

4500993P

7013 3020 0001 0841 5438

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Restricted Delivery Fee (Endorsement Required)	
Total	

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Sent To: **Lawson Heirs, Inc., c/o Hodges, Jones & Mabry PC**
 Street, A or PO Box: **P.O. Box 648**
 City, State: **Wytheville, VA 24382**

Lawson Heirs B-5

PS Form 3800, August 2006

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Restricted Delivery Fee (Endorsement Required)	
Total	

Postmark Here

Sent To: **Hica Corporation**
 Street, A or PO Box: **P.O. Box 800**
 City, State: **Wise, VA 24293**

Lawson Heirs B-5

PS Form 3800, August 2006

7013 3020 0001 0841 5452

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total P.	

Postmark Here

Sent To: **John I. Carter, et al**
 Street, A or PO Box: **HC 74 Box 3251**
 City, State: **Chapmanville, WV 25508**

Lawson Heirs B-5

PS Form 3800, August 2006

7013 3020 0001 0841 5445

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Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	

Postmark Here

Sent To: **John A. Belcher**
 Street, A or PO Box: **HC 74 Box 3194**
 City, State: **Chapmanville, WV 25508**

Lawson Heirs B-5

PS Form 3800, August 2006

7013 3020 0001 0841 5469

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total P.	

Postmark Here

Sent To: **Ralph Triplett**
 Street, A or PO Box: **5539 McClellan Hwy**
 City, State: **Branchland, WV 25506**

Lawson Heirs B-5

PS Form 3800, August 2006

RECEIVED
 Office of Oil and Gas
 OCT 23 2014
 WV Department of
 Environmental Protection

12/05/2014

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) Crawley Creek of the Guyandotte River Quadrangle Chapmanville

Elevation 675.63' County Logan District Guyan

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

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? _____

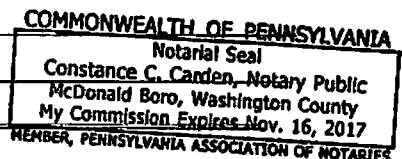
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 22nd day of October, 20 13

Constance C. Camden Notary Public

My commission expires 11/16/2013

12/05/2014

45 00993P

Form WW-9

Operator's Well No. Lawson Heirs B-5

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

Area II		
Seed Type	lbs/acre	
Grain Rye - 100	Red Clover - 5	Fescue - 40
Annual Rye - 20	White Clover - 5	
Perennial Rye - 1	Alta Sweet Clover - 5	
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.

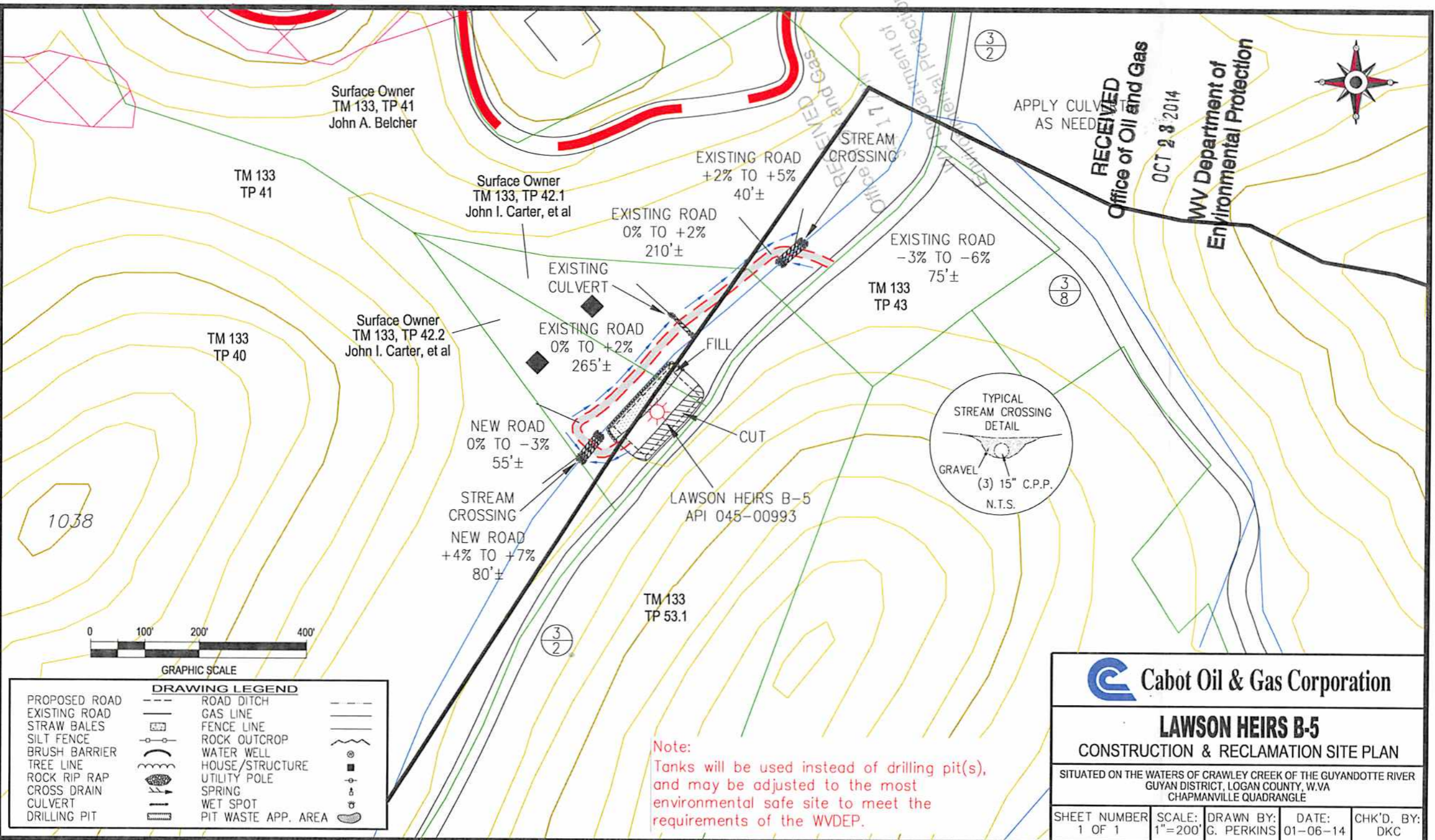
Plan Approved by: _____

Comments: Difficult location between stream & OOH Guardrail.
No room for pit. Fluids? to be placed in tank.

Title: District Inspector Date: October 27, 2014

Field Reviewed? Yes No

4500993P



Cabot Oil & Gas Corporation

**LAWSON HEIRS B-5
CONSTRUCTION & RECLAMATION SITE PLAN**

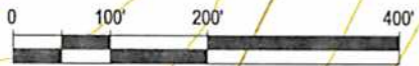
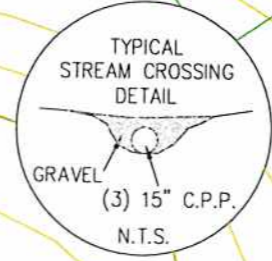
SITUATED ON THE WATERS OF CRAWLEY CREEK OF THE GUYANDOTTE RIVER
GUYAN DISTRICT, LOGAN COUNTY, W.VA
CHAPMANVILLE QUADRANGLE

SHEET NUMBER 1 OF 1	SCALE: 1"=200'	DRAWN BY: G. PERKINS	DATE: 01-06-14	CHK'D. BY: DKC
------------------------	-------------------	-------------------------	-------------------	-------------------

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.

RECEIVED
Office of Oil and Gas
OCT 28 2014
WV Department of
Environmental Protection

APPLY CULVERT
AS NEEDED



DRAWING LEGEND

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

Surface Owner
TM 133, TP 41
John A. Belcher

Surface Owner
TM 133, TP 42.1
John I. Carter, et al

Surface Owner
TM 133, TP 42.2
John I. Carter, et al

TM 133
TP 40

EXISTING ROAD
+2% TO +5%
40'±

EXISTING ROAD
0% TO +2%
210'±

EXISTING
CULVERT

EXISTING ROAD
0% TO +2%
265'±

NEW ROAD
0% TO -3%
55'±

STREAM
CROSSING
NEW ROAD
+4% TO +7%
80'±

LAWSON HEIRS B-5
API 045-00993

TM 133
TP 53.1

EXISTING ROAD
-3% TO -6%
75'±

TM 133
TP 43

3
2

3
8

3
2

1038

4500993P



Surface Owner
TM 133, TP 41
John A. Belcher

TM 133
TP 41

Surface Owner
TM 133, TP 42.1
John I. Carter, et al

Surface Owner
TM 133, TP 42.2
John I. Carter, et al

TM 133
TP 40

EXISTING ROAD
+2% TO +5%
40'±

EXISTING ROAD
0% TO +2%
210'±

EXISTING
CULVERT

EXISTING ROAD
0% TO +2%
265'±

NEW ROAD
0% TO -3%
55'±

STREAM
CROSSING
NEW ROAD
+4% TO +7%
80'±

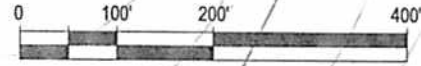
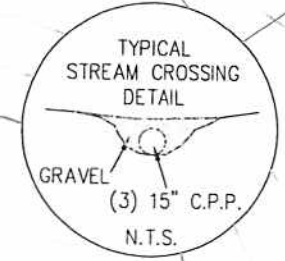
LAWSON HEIRS B-5
API 045-00993

TM 133
TP 53.1

APPLY CULVERTS
AS NEEDED

EXISTING ROAD
-3% TO -6%
75'±

TM 133
TP 43



GRAPHIC SCALE

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	

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.

Cabot Oil & Gas Corporation

LAWSON HEIRS B-5
CONSTRUCTION & RECLAMATION SITE PLAN

SITUATED ON THE WATERS OF CRAWLEY CREEK OF THE GUYANDOTTE RIVER
GUYAN DISTRICT, LOGAN COUNTY, W.VA
CHAPMANVILLE QUADRANGLE

SHEET NUMBER 1 OF 1	SCALE: 1"=200'	DRAWN BY: G. PERKINS	DATE: 01-06-14	CHK'D. BY: DKC
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RDT
10/27/14

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 [Symbol]
- SILT FENCE [Symbol]
- BRUSH BARRIER [Symbol]
- TREE LINE [Symbol]
- ROCK RIP RAP [Symbol]
- CROSS DRAIN [Symbol]
- CULVERT [Symbol]
- DRILLING PIT [Symbol]
- ROAD DITCH [Symbol]
- GAS LINE [Symbol]
- FENCE LINE [Symbol]
- ROCK OUTCROP [Symbol]
- WATER WELL [Symbol]
- HOUSE/STRUCTURE [Symbol]
- UTILITY POLE [Symbol]
- SPRING [Symbol]
- WET SPOT [Symbol]
- PIT WASTE APP. AREA [Symbol]

DRIVING DIRECTIONS FOR LAWSON HEIRS B-5

- 1.) FROM DANVILLE, W.VA DRIVE SOUTH ON U.S. ROUTE 119 FOR 15 MILES± TO CHAPMANVILLE AND EXIT THE HIGHWAY.
- 2.) AT THE BOTTOM OF THE RAMP GO STRAIGHT (SOUTH) ON SECONDARY ROUTE 3 FOR 4.2 MILES± TO THE INTERSECTION OF SECONDARY ROUTE 3/2.
- 3.) TURN LEFT AT THE INTERSECTION AND CONTINUE IN A SOUTHERLY DIRECTION ON SECONDARY ROUTE 3/2 FOR 0.4 MILES± TO BEGINNING OF THE EXISTING ACCESS ROAD LOCATED ON THE RIGHT-HAND SIDE OF THE ROAD.
- 4.) FROM THE AFOREMENTIONED SITE, FOLLOW THE EXISTING ROAD FOR APPROXIMATELY 800 FEET± TO THE EXISTING WELL SITE AS SHOWN ON THE "CONSTRUCTION AND RECLAMATION PLAN".

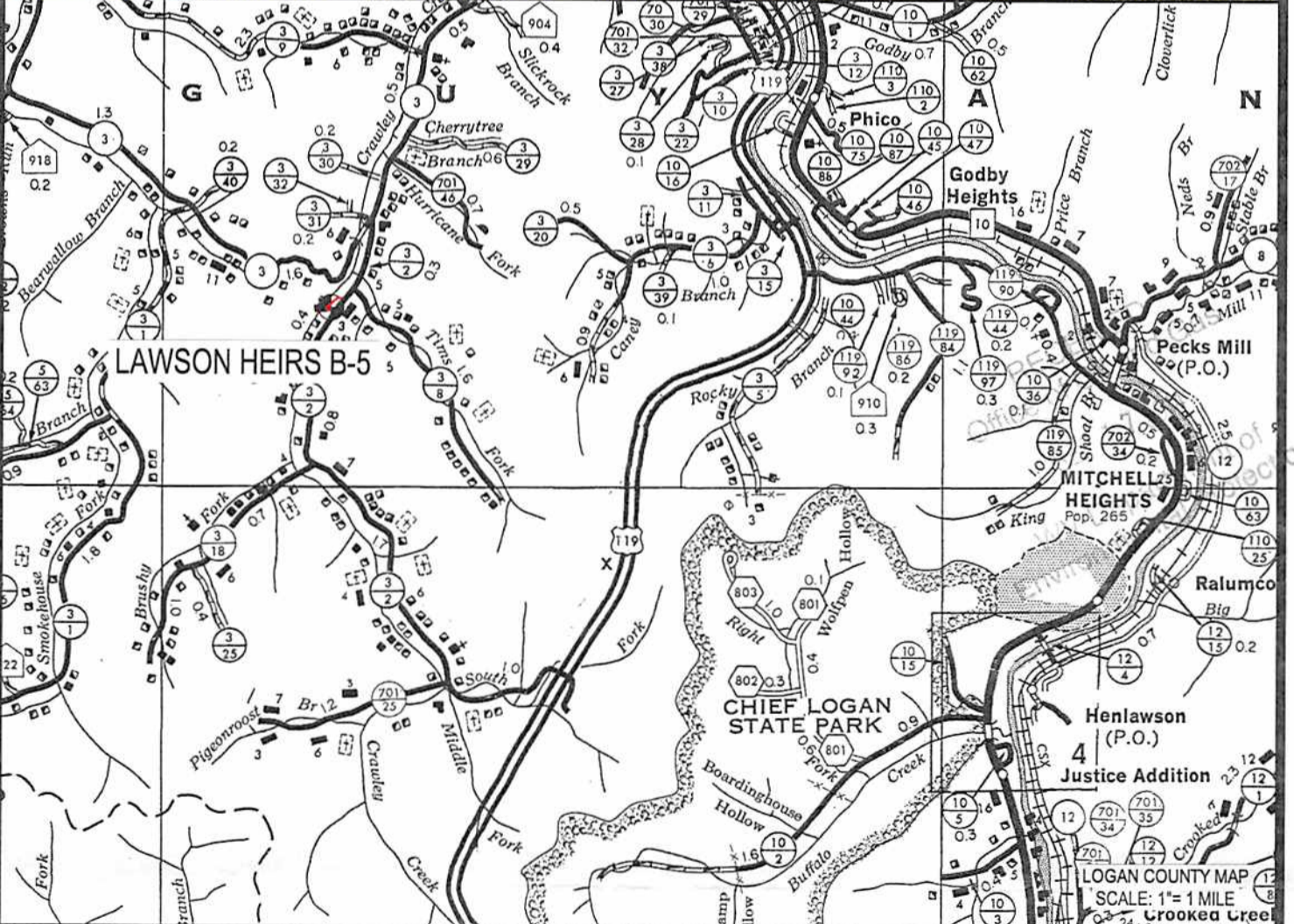
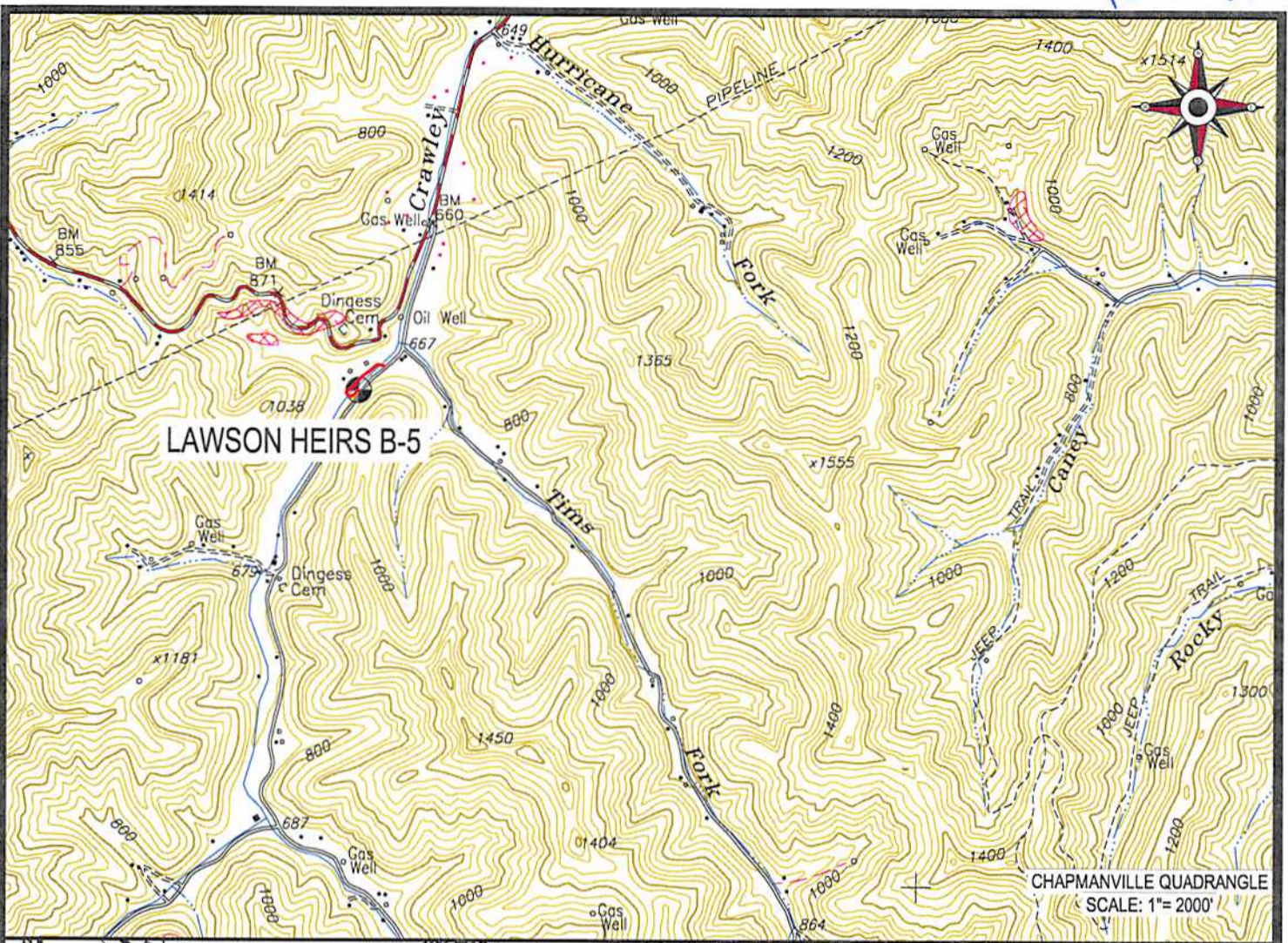
RECEIVED
Office of Oil and Gas
12/03/2014

OCT 28 2014

WV Department of
Environmental Protection



LAWSON HEIRS B-5
GUYAN DISTRICT, LOGAN COUNTY, W.VA
CHAPMANVILLE 7.5' QUADRANGLE



 Cabot Oil & Gas Corporation

LAWSON HEIRS B-5
LOCATION MAP 12/05/2014



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 • DKCUNNINGHAM@SUDDENLINK.NET •

LOCATED ON THE WATERS OF CRAWLEY CREEK
OF THE GUYANDOTTE RIVER
GUYAN DISTRICT, LOGAN COUNTY, W.VA
CHAPMANVILLE QUADRANGLE

PROJECT NO. CABOT	DWG. NO. LAWSON B-5 LOC.DWG
DATE: 01-06-14	SCALE: AS NOTED
CHK'D BY: D.K.C.	FILE: C:\PROJECT FOLDER\CABOT

4500993P

WW-7
8-30-06



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

API: 47-045-00993 WELL NO.: B-5

FARM NAME: Lawson Heirs

RESPONSIBLE PARTY NAME: Cabot Oil & Gas Corporation

COUNTY: Logan DISTRICT: Guyan

QUADRANGLE: Chapmanville

SURFACE OWNER: John I. Carter, et al

ROYALTY OWNER: Lawson Heirs, Inc.

UTM GPS NORTHING: 4,198,905.23

UTM GPS EASTING: 406,431.54 GPS ELEVATION: 675.63'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS x: Post Processed Differential X

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.

Signature

Regulatory Supervisor
Title

9/30/2014
Date

12/05/2014

45 00993A



North Region
October 22, 2014

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

RE: Lawson Heirs B-5
Guyan District, Logan County, WV
API # 47-045-00993
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,

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

Kenneth L. Marcum
Regulatory Supervisor

RECEIVED
Office of Oil and Gas

OCT 23 2014

WV Department of
Environmental Protection