



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

March 14, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10301229, issued to EQT PRODUCTION COMPANY, 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: 657241
Farm Name: KILCOYNE, S. J., ESTATE
API Well Number: 47-10301229
Permit Type: Plugging
Date Issued: 03/14/2016

Promoting a healthy environment.

03/18/2016

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.

10301229P

Form WW-4 (B)
Permit Copy
(Rev 2/01)

Date: February 11, 2016
Operator's Well
Well No. 657241 (Barr #1848)
API Well No.: 47 103 - 01229

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

CK 20236
(600)
100th

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) Elevation: 855 ft. Watershed: North Fork Fishing Creek
Location: Grant County: Wetzel Quadrangle: Big Run 7.5'
District: _____

6) Well Operator EQT Production Company
120 Professional Place
Address: Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

8) Oil & Gas Derek Haught
Name: P. O. Box 85
Address: Smithville, WV 26178

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:
See Attachment for details and procedures.

OFFICE USE ONLY

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

Work order approved by inspector _____

Date 2-19-16

03/18/2016

PLUGGING PROGNOSIS

Barr # 1848
657241
District, Grant
Wetzel, WV
API # 47-103-01229
BY: R. Green
DATE: 1/21/16

CURRENT STATUS:

Elevation @ 855'
TD @ 5972' (Plugged Back to 5095' when drilled in 1981)
Composite bridge plug set @ 2865' in 2008.
Perforated and completed Gordon and 4th Sand 2642' to 2786'

16" @ 21'
11 3/4" csg @ 228' (CTS)
8 5/8" csg @ 1671'
4 1/2" csg @ 5085'
Freshwater, @ 45' & 117'
Saltwater @ None reported
Gas shows @ None reported
Oil shows @ none reported
Coal @ 115' & 849'

1. Notify state inspector, Derek Haught, 304-206-7613, 24hrs, prior to commencing operations.
2. TIH check TD, rig up and drill out bridge plug @ 2865'.
3. TIH wireline check TD @ 5000'
4. TIH tbg to 5000', set 1000' C1A cement plug 5000' to 4000'. (Bradford & Benson perms.) WOC 4hrs, tag TOC, add additional C1A cement if necessary.
5. TOOH tbg to 4000', gel hole, 4000' to 3600'.
6. TOOH tbg to 3600', set 400' C1A cement plug 3600' to 3200'. (Warren & Speechly perms.). WOC 4 hrs. tag TOC, add additional C1A cement if necessary.
7. TOOH tbg to 3200', gel hole 3200' to 3100'.
8. TOOH tbg to 3100', set 700' C1A cement plug, 3100' to 2400'. (Warren, 4th Sand, & Gordon perms.) WOC 4hrs, tag TOC, add additional C1A cement if necessary.
9. TOOH tbg to 2400' gel hole 2400' to 2200'. TOOH tbg.
10. Free point 4 1/2" casing, cut casing @ free point, TOOH casing.
11. Set 100' C1A cement plug 50' in/out of casing cut, perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
12. TOOH tbg to top of casing cut plug, gel hole to next plug.
13. TOOH tbg to 1700', set 200' C1A cement plug 1700' to 1500'. (8 5/8" casing seat).
14. TOOH tbg to 1500', gel hole 1500' to 1000'.
15. TOOH tbg to 1000', set 300' C1A cement plug 1000' to 700'. (Coal @ 849')
16. Free point 8 5/8" casing, cut casing @ free point, TOOH casing.
17. Set 100' C1A cement plug 50' in/out of cut, perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
18. TOOH tbg to top of casing cut plug. Gel hole to next plug.
19. TOOH tbg to 300', set 300' C1A cement plug 300' to surface. (11 3/4" casing seat, freshwater @ 45' 117', coal @ 115').
20. Erect monument with API#, company name and 6 digit well code # and date plugged.
21. Reclaim location, roads to WV-DEP specifications.

DmH
2-19-16

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

API# 471030122800 **F**

103012299P ✓

Farm Name Kilcoyne, John W Well Number 657241
 Location Elevation 855 Quadrangle Big Run
 District Grant County Wetzel, WV
 Latitude 8640 FSL Degree 39.00 Minute 35.00 Second 0.00
 Longitude 4470 FWL Degree 80.00 Minute 32.00 Second 30.00

Company EQT Production Company
1710 Pennsylvania Avenue Charleston,
WV 25328
 Agent Cecil Ray
 Inspector Mike Underwood
 Permit issued 11/27/2007
 Well Work Commenced 04/14/2008
 Well Work Completed 08/01/2008
 Verbal Plugging
 Permission granted on _____
 Rotary Rig Cable Rig _____

| Casing & Tubing Size | Used in Drilling | Left in Well | Cement Fill Up Cubic Ft |
|----------------------------|------------------|--------------|-------------------------|
| <i>previously reported</i> | | | |

Total Depth 5,972

Water Encountered

Type _____ From _____
previously rptd

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 AUG 10 2009
 WV Department of
 Environmental Protection

Coal & Open Miss

Type _____ From _____
previously rptd

Open Flow Data

Producing Formation Gordon/4th sand Pay Zone Depth (ft): See attached for details

Gas: Initial Open Flow 0 MCF _____ Date _____ Oil: Initial Open Flow _____ Bbl/d
 Final Open Flow 510 MCF 06/02/2008 Date _____ Final Open Flow _____

Time of open flow between initial and final tests 0 hours
 Static Rock Pressure 420 after 0 hours

Second Producing Formation _____ Pay Zone Depth (ft) _____

Gas: Initial Open Flow _____ MCF _____ Date _____ Oil: Initial Open Flow _____ Bbl/d
 Final Open Flow _____ MCF _____ Date _____ Final Open Flow _____

Time of open flow between initial and final tests _____ hours
 Static Rock Pressure _____ after _____ 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, a systematic detailed geological record of all formations including coal encountered in the well bore

By [Signature]
 Date 6/5/09

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 Office of Oil and Gas
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 WV Dept. of Environmental Protection
 Big Run 5
 03/18/2016

Well Number 657241

EQT Company
WR-35 Completion Report - Attachment
Well Treatment Summary

API # 471030122900

10301229P
F

| | |
|---------------|-------------------|
| Page 1 | |
| Date | 05/20/2008 |
| Frac Typ | X-Link |
| Zone | Gordon/4th sand |
| # of Perfs | 40 |
| From/To | 2,642 - 2,786 |
| BD Press | 2,451 |
| ATP Psi | 3,164 |
| Avg Rate | 31 |
| Max Press Psi | 3,184 |
| ISIP Psi | 2,810 |
| 10mln SIP | 2,649 5 min. |
| Frac Gradient | 0.00 |
| Sand Proppant | 600.00 |
| Water-bbl | 845 bbl |
| SCF N2 | 200,000 |
| Acid-gal | 500 gal 15%HCL |

Formation Name Depth To Depth Bottom Formation Thick

previously reported

Gas Tests

Depth Remarks

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Office of Oil and Gas
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WV Department of
Environmental Protection

03/18/2016



Historical Well Chronology

Where energy meets innovation.

Well Name: 657241 BARR 1848

| | | | | | | | | |
|---------------------------|--------------------------|-----------------------|---------------|------------------|-----------------|----------------------|--|-------------|
| API 471030122900 | Enerbia Well # 657241 | PUD Name & # | Permit Number | Permit Date | Prod Resp Party | Farm Name (WV) | Operator Equitable Production Company | State WV |
| Orig KB Elev... 865.00 | Spud Date 4/14/2008 | Planned Well Geometry | Well Type | Loc Stat from LM | Area | County Wetzel, WV | Quad | |

| | | | |
|--|--------------------------------------|---------------------------|--|
| Report #: 8.0 | DFS: 23.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/7/2008 06:00 | Operations at Report Time Squeeze | | Last Casing String |
| Day Total (Cost) 18,259.00 | Cum To Date (Cost) 32,269.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary On 5/6: Opsi lb 8-5/8 x 4-1/2" annulus & 4-1/2" were open to prod line. RIH. Set Blue Dot composite plug @ 2865'. Loaded hole w/ fresh wtr. Pressure test 4-1/2 to 1,000 psi. Held 2" flow line, laid to pit. 10' freeboard in pit. 4-250bbls tanks on loc, used 225bbls. Meeks ran GR/CBL/CBL/VDL log from 2856' to 1650'. Performed from 2818' - 2820', 2 shots/ft. Estimated TOC after squeeze 2200'. Superior squeezed w/ 135ax of Class A cmt w/ 2%CaCl mixed @ 1.21y/d, 15ppg. SWI. Wire line stopped @ 2483'. Pumped 44bbls displacement. Plug estimated @ 2780'. TOC 2850' from primary job.</p> | | | |

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|---|--------------------------------------|---------------------------|--|
| Report #: 9.0 | DFS: 25.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/9/2008 06:00 | Operations at Report Time Logging | | Last Casing String |
| Day Total (Cost) | Cum To Date (Cost) 32,269.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary On 5/9: Bond log well</p> | | | |

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|--|-----------------------------------|---------------------------|--|
| Report #: 10.0 | DFS: 28.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/12/2008 06:00 | Operations at Report Time MIRU | | Last Casing String |
| Day Total (Cost) 1,100.00 | Cum To Date (Cost) 33,369.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary On 5/12: Arvilla MIRU.</p> | | | |

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|--|---|---------------------------|--|
| Report #: 11.0 | DFS: 29.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/13/2008 06:00 | Operations at Report Time Drill Cement | | Last Casing String |
| Day Total (Cost) 4,300.00 | Cum To Date (Cost) 37,669.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary MIRU Arvilla. Drill out cement to CBP. On 5/12: Arvilla moved rig and equipment. MI compressor and power swivel.</p> | | | |

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|--|---------------------------------|---------------------------|--|
| Report #: 12.0 | DFS: 30.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/14/2008 06:00 | Operations at Report Time | | Last Casing String |
| Day Total (Cost) | Cum To Date (Cost) 37,669.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary Arvilla down, air packs broke down. On 5/13: MIRU Arvilla Rig 188 and haul in tubing to drill out cement. Begin drilling down to composite plug @ 2885'.</p> | | | |

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|---|---|---------------------------|--|
| Report #: 13.0 | DFS: 31.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/15/2008 06:00 | Operations at Report Time Drill Cement | | Last Casing String |
| Day Total (Cost) 4,000.00 | Cum To Date (Cost) 41,669.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary Repair air packs. Continue to drill out cement. On 5/14: Arvilla shut down. Air pack is broke down.</p> | | | |

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|--|---|---------------------------|--|
| Report #: 14.0 | DFS: 32.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/16/2008 06:00 | Operations at Report Time Drill Cement | | Last Casing String |
| Day Total (Cost) 4,800.00 | Cum To Date (Cost) 46,469.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary Arvilla soap well and continue to drill. On 5/15: Arvilla repaired air pack. Drilled 90 ft and hit mud ring. No soap on location. Shut down and bring in soap tomorrow to resume drilling.</p> | | | |

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|---|---|---------------------------|--|
| Report #: 15.0 | DFS: 33.25 | Rigs: <Rig?> | Job Category: Completion/Workover |
| Report End Date 5/17/2008 06:00 | Operations at Report Time Drill Cement | | Last Casing String |
| Day Total (Cost) 4,300.00 | Cum To Date (Cost) 50,769.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 |
| Drill Hrs (hr) | Avg ROP (ft/hr) | Daily Contacts | |
| <p>Operations Summary Finish drilling and circulated well clean. On 5/16: Resumed drilling. Lost circulation. Worked pipe up and down until it began to circulate again. Continued drilling 30 ft. Shut down for the day.</p> | | | |

Office of Oil and Gas
FEB 18 2009
WV Department of Environmental Protection

03/18/2016



Historical Well Chronology

Well Name: 657241 BARR 1848

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|---------------------------|--------------------------|-----------------------|---------------|------------------|-----------------|----------------------|--|-------------|
| API 471030122800 | Enertia Well # 657241 | PUD Name & # | Permit Number | Permit Date | Prod Resp Party | Farm Name (WV) | Operator Equitable Production Company | State WV |
| Orig KB Elev... 885.00 | Spud Date 4/14/2008 | Planned Well Geometry | Well Type | Loc Stat from LM | Area | County Wetzel, WV | Quad | |

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|---|---|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 16.0 | DFS: 34.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/18/2008 06:00 | Operations at Report Time Prep to Frac | | | Last Casing/String | | | |
| Day Total (Cost) 4,900.00 | Cum To Date (Cost) 55,689.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary Arvilla swab well. Cunningham dozer and crew to On 5/17: Continued drilling. Drilled out a total of 294 ft of cement to get to CBP. Circulated hole clean and began to pull pipe. | | | | | | | |

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|--|--|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 17.0 | DFS: 36.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/20/2008 06:00 | Operations at Report Time Clean up, | | | Last Casing/String | | | |
| Day Total (Cost) 50,860.00 | Cum To Date (Cost) 106,529.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary AM Status: Clean up after frac. On 5/19: MIRU Superior & Meeks. Meeks perfed Gordon/ 4th sand 40H-2642'-2786'. BJ fraced Gordon/ 4th sand w/ X-Link. BD 2451psi, ATP 3164psi, MTP 3184psi. ISIP 2810psi, 2min SIP 1438psi, 5min SIP 2649psi, 10min SIP 2546psi, AVG rate 31bpm-foam, Max rate 31bpm-foam, FG 1.40. Superior pumped 60,000# of 20/40 sand, 845bbbls of wr, 200,000 SCF N ² , 500gals of 15% acid. RDMO Superior & Meeks. MIRU Ark flowback. Opened well to pit thru 1/4" choke @ 1750psi, flowing heavy fluid w/ 2-1/2' freeboard. Flowed to 1000psi w/ returns of heavy fluid. Stepped up to 3/8" choke. Flowed to 760psi w/ returns of heavy fluid. Stepped up to 1/2" choke. Flowed to 500psi w/ returns of heavy fluid. Stepped up to 3/4" choke. Flowed to 300psi w/ returns of heavy fluid. Stepped up to 1" choke. Flowed to 100psi w/ returns of light fluid to heavy mist. Stepped up to 2" pipe. Flowed to 0psi w returns of surging fluid. Monitored well, had no returns of fluid w/ vapor of gas. SI 30min. SICP 0. 20" freeboard in pit. RDMO Ark. Pit fence integrity intact. | | | | | | | |

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|--|--|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 18.0 | DFS: 37.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/21/2008 06:00 | Operations at Report Time Sand pump | | | Last Casing/String | | | |
| Day Total (Cost) 2,700.00 | Cum To Date (Cost) 109,229.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary Am status:Arvilla run in with sand pump. Cunningham hauled tank from Redman to Barr 1849. On 5/20: Arville: Checked pressure on well, @ 430 psi. Blew down well. Began to flow back frac fluid. Waited on well to blow down. | | | | | | | |

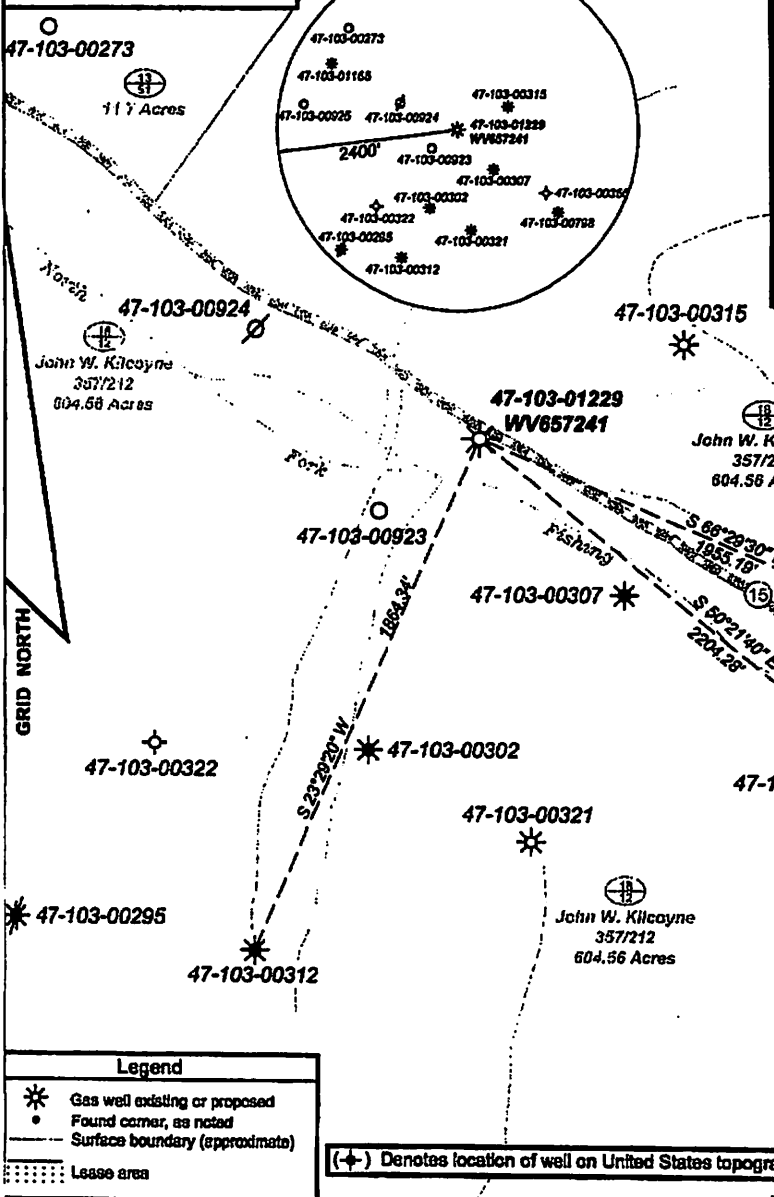
| | | | | | | | |
|--|--|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 19.0 | DFS: 38.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/22/2008 06:00 | Operations at Report Time Sand pump | | | Last Casing/String | | | |
| Day Total (Cost) 1,900.00 | Cum To Date (Cost) 111,129.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary AM Status: Arvilla blow well to pit. Run in with sand pump. On 5/21: Arvilla R/I hole, tagged bottom @ 2706 ft. R/U sand pump, made 12 runs down to 2842 ft. Flowed heavy returns of mist. Gas check 0.2 thru 4.5" with 237mcf. Well continued to blow at similar rate. LOTP ON. | | | | | | | |

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|--|--|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 20.0 | DFS: 39.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/23/2008 06:00 | Operations at Report Time Sand pump | | | Last Casing/String | | | |
| Day Total (Cost) 980.00 | Cum To Date (Cost) 112,109.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary AM Status: Arvilla tag CBP. On 5/22: Arvilla Rig blow well to pit. Run in with sand pump, check TD @ 2835'. Made 8 runs to tag plug @ 2865'. Trip in with bit and drill out plug in 1 hr. Well kicked off and filled up with sand. Flowing heavy fluid so had to let well flow, LOON | | | | | | | |

| | | | | | | | |
|---|--|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 21.0 | DFS: 44.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/28/2008 06:00 | Operations at Report Time Sand pump | | | Last Casing/String | | | |
| Day Total (Cost) 1,900.00 | Cum To Date (Cost) 114,009.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary AM Status: Arvilla run in with sand pump. On 5/27: Arvilla: Checked pressure @ 400 psi. It took 1.5 hrs to blow well down. Run in hole and tagged bottom at 2814 ft, 51 ft of fill. Run in hole with sand pump. Made 10 runs down before hitting plug @ 2885 ft. Rig went down, shut down for day to get parts. LOTP ON. Gas check 0.5 thru 4.5" w/ water, 375 mcf. | | | | | | | |

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|---|--|---------------------------|--|-----------------------|-----------------|----------------|--|
| Report #: 22.0 | DFS: 45.25 | Rigs: <Rig?> | Job Category: Completion/Workover | | | | |
| Report End Date 5/29/2008 06:00 | Operations at Report Time Sand pump | | | Last Casing/String | | | |
| Day Total (Cost) 1,900.00 | Cum To Date (Cost) 115,909.00 | Start Depth (ftKB) 0.0 | End Depth (ftKB) 0.0 | Drill Hrs (hr) 0.0 | Avg ROP (ft/hr) | Daily Contacts | |
| Operations Summary AM Status: Run in with sand pump, clean out to plug. On 5/28: Arvilla Rig: Run in hole, tagged bottom @ 2791 ft with 74 ft of fill. Run in pump. Made 10 runs down to plug @ 2885 ft. Trip out and run in with bit. Drill out plug. Well kicked flowing heavy fluid and sand. Made 2 more runs with sand pump to plug. LOTP ON. | | | | | | | |

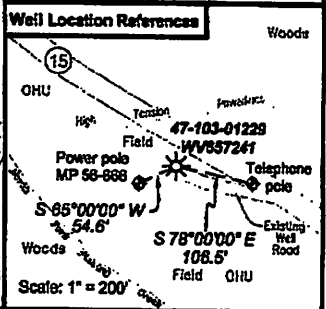
Equitable Production Company, Inc.
47-103-01229 WV657241
1004 Acres Lease



Notes:
Well site coordinates are
N: 387692 Latitude: 39.559623
E: 1701851 Longitude: 80.557486
West Virginia
Coordinate System of 1927, North Zone
based upon
Differential GPS Measurements.
Plat orientation and corner and well
references are based upon the grid
north meridian.
Well location references are based upon
the magnetic meridian.

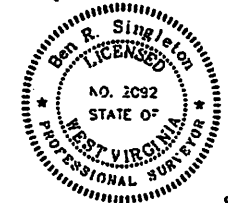
Legend
* Gas well existing or proposed
• Found corner, as noted
--- Surface boundary (approximate)
Lease area

(+) Denotes location of well on United States topographic maps



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.

Ben R. Singleton
P.S. 2092



FILE NO: 05-34-0-07 EQT 1-39
DRAWING NO: 0534007 plat.dwg
SCALE: 1" = 500'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CGRS 68SP

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

DATE: August 27 20 2007
OPERATOR'S WELL NO. WV657241
API WELL NO: 47-103-01229
47 103 1229F
STATE COUNTY PERMIT
Barr #1848

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 855' WATERSHED North Fork Fishing Creek
QUADRANGLE: Big Run DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: John W. Kilcoyne ACREAGE: 804.56 Ac.
OIL AND GAS ROYALTY OWNER: Dominion Transmission LEASE NO: 706740 ACREAGE: 1003.75 Ac.
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Shale ESTIMATED DEPTH: 5972'

WELL OPERATOR: Equitable Production Company, Inc. DESIGNATED AGENT: L. Todd Tetrico
ADDRESS: 1710 Pennsylvania Ave. ADDRESS: 1710 Pennsylvania Ave. Big Run 5
Charleston WV 25309

RECEIVED
FEB 18 2016
03/18/2016

CASING DETAIL

21' 16" Conductor CSG

228' 11-3/4" CSG

Cemented to Unknown Depth

1671' 8-5/8" CSG

Existing Configuration

WELL: 657241 - Barr #1848

DATE: 7/9/2007

SCHEMATIC BY: James Pahel, Reservoir Engineer

API: 4710301229

LOCATION: Wetzel County, WV

QUADRANGLE: Big Run

SPUD: 6/4/1981

COMPLETED: 7/22/1981

TIL: Unknown

GL: 849 ft

KB: 864 ft

WI: 100.00%

Proposed Additions

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| | | |
|-------------|----------------|-------|
| 2642'-2646' | Gordon (9H) | 2 spf |
| 2662'-2666' | Gordon (9H) | 2 spf |
| 2712'-2718' | 4th Sand (19H) | 3 spf |
| 2784'-2486' | 4th Sand (3H) | 1 spf |

Single Stage

Warren (8H) 2669'-3057'

Warren, Speechley (18H) 3336'-3582'

Bradford, Benson (16H) 4177'-4987'

Cemented to Unknown Depth

5095' 4-1/2" CSG

PBTD @ Unknown

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Composite plug set @ 2865' on

5/7/2008

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03/18/2016

103-01229

RE-COMPLETION PROCEDURE
 BARR #1848 (657241)
 WETZEL COUNTY, WEST VIRGINIA
 API NO. 47-103-01229

CURRENT STATUS

16" grade H40 conductor csg @ 31' KB
 11 3/4" grade H40 csg @ 238'
 8 5/8 grade K55 csg @ 1671' KB.
 4 1/2", grade J55 csg @ 5095' KB.

PRODUCING FORMATIONS

Warren 2669'- 3057' (8H)
 Warren, Speechly 3336'- 3582' (18H)
 Bradford, Benson 4177'- 4987' (16H)

CURRENT PRODUCTION

0 Mcf/d

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PROSPECTIVE FORMATIONS

Gordon 2642'- 2666' (18)
 4th Sand 2712'- 2486' (22H)

Objective: Complete a squeeze and a one-stage frac of the Gordon & 4th Sand, intervals.

SQUEEZE

1. Notify state inspector. MIRU service rig. RIH w/rig tools. Check and record TD of the well.
2. MIRU wireline truck. Set 4 1/2" SBP at approximately 2500'. Load hole w/approx. 40.6 bbls fresh water. Pressure test 4 1/2' csg to 1000 psi.
3. Run GR/CCL/TOC from SBP to 1700'.
4. Shoot squeeze perms approx. 20' above the TOC.
5. Rig up Service Company and attempt to circulate to surface with w/75 bbls 3% gel followed by freshwater.
6. Follow gel/water space with enough Class A w/2% CaCl cement to achieve fill up of 400' above Gordon interval. Displace w/wiper plug. Stop plug within 20' of squeeze holes. Wait 24 hrs before further operations commence.
7. MIRU service rig and wireline truck. Run GR/CCL/CBL log from wiper plug to 150' above TOC.
8. Drill out squeeze/wiper plug with service rig.
9. Swab well dry to 2500' inside 4 1/2" casing. Prepare for stimulation job.

STIMULATION JOB

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103-01882-F

GOORDON/4TH SAND

1. Pump 500 gallons 15 % HCL acid down casing string
2. Under a lubricator, perforate the Gordon/4th Sand with 40 shots over the intervals of 2642' - 2666', 2712' - 2786'.
3. Breakdown formation w/treated water.
4. Frac Gordon/4th Sand using cross-link gel with N2 assist carrying _____ lb of 20/40 sand.
5. Flush w/treated water and acid
6. Shut down and record SIP.

CLEAN UP OPERATIONS

1. Flowback well through chokes.
2. Test gas rate.
3. Drill out frac plugs and SBP.
4. Swab well to TD (+/- 5000'). Record all fluid recovered
5. Test and record gas rate through 3 hr open flow.
6. TIH with 2 3/8", 4.7 #/ft, 8 rd. J-55 new tubing.
7. Run broach to seating nipple. Swab well dry if necessary. Record total amount of fluid recovered.
8. Turn over to production and notify production operations group.

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10301229P

FORM 17-35
(October 1976)
105-78

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
Mike Barr
WELL OPERATOR'S REPORT
OF
DRILLING, FRACURING AND/OR STIMULATION OF AN OIL OR GAS WELL

DATE: APRIL 12, 1981
WELL NO.: 103-1229
103-1229

RECEIVED
SEP 4 - 1981
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

WELL TYPE: Oil / Gas / Liquid Injection / Waste Disposal
(If "Gas", Production / Underground storage / Beer
LOCATION: Elevation: 649 Watershed: North Fork of Fishing Creek
District: Grant County: Wetzel Township: Big Run

WELL OPERATOR: Carnegie Natural Gas Company DESIGNATED AGENT: James C. Stephenson
Address: 3904 Main St. Address: PO Box 387
Munhall, Pa. 15120 Mannington, WV 26582

PERMITTED WORK: Drill / Convert / Drill deeper / Re-drill / Fracture or stimulate
Plug off old formation / Perforate new formation
Other physical change in well (specify) _____

PERMIT ISSUED ON April 21, 1981
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19____)

OIL & GAS INSPECTOR FOR THIS WORK:
Name: Phillip Lee Tracy
Address: PO Box 173
Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Alexander Depth: 2990 feet
Depth of completed well, 5972 feet Rotary / Cable Tools _____
Water strata depth: Fresh, 45-50 feet; salt, _____ feet.
Coal seam depths: 115-117, 595-601 Is coal being mined in the area? no
Work was commenced June 4, 1981, and completed July 22, 1981

CASING AND TUBING PROGRAM

| CASING OR TUBING TYPE | SPECIFICATIONS | | | | FOOTAGE INTERVALS | | CEMENT FILL OR SACKS (cubic feet) | PACKERS |
|-----------------------|----------------|-------|---------------|-----|-------------------|--------------|-----------------------------------|---------------|
| | Size | Grade | Weight per ft | New | Used | For drilling | | |
| Conductor | 16 | H40 | | X | | 21 | 21 | Winds |
| Fresh water | | | | | | | | |
| Coal | 11-3/4 | H40 | | X | | 228 | 228 | Slips |
| Intermediate | 8-5/8 | K55 | | X | | 1671 | 1671 | |
| Production | 4-1/2 | J55 | | X | | 5095 | 5095 | Perforations: |
| Tubing | | | | | | | | Top Bottom |
| Liners | | | | | | | | |

OPEN FLOW DATA
Producing formation: Benson and Bradford, Warren and Speechley, Warren
Gas: Initial open flow, 14.9 Mcf/d; Final open flow, 94 Mcf/d
Static rock pressure, 375 psig (surface measurement) after 17 hr of shut in
Depos producing formation: _____
Gas: Initial open flow, _____ Mcf/d; Final open flow, _____ Mcf/d

03/18/2016

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

WELL LOG

| FORMATION | Color | Hard or Soft | Top Feet | Bottom Feet | Remarks Including indication of all fresh and salt water, coal, gas and gas |
|------------------|------------|--------------|----------|-------------|--|
| Shale | Gray | | 0 | 40 | |
| Sand | Blue-Gray | | 40 | 50 | Water - 45 1/2" |
| Shale | Gray | | 50 | 60 | Water - 50 3" |
| Sand | Gray | | 60 | 65 | |
| Sandy Shale | Gray | | 65 | 80 | |
| Shale | Gray | | 80 | 115 | |
| Coal | Black | | 115 | 117 | Water - 117 1-1/2" |
| Shale | Gray | | 117 | 190 | |
| Red Rock & Shale | Red & Gray | | 190 | 195 | |
| Shale | Gray | | 195 | 250 | |
| Red Rock | Red | | 250 | 255 | |
| Shale | Gray | | 255 | 315 | |
| Sand | Gray | | 315 | 345 | |
| Shale | Gray | | 345 | 425 | |
| Red Rock | Red | | 425 | 435 | |
| Shale | Gray | | 435 | 490 | |
| Shale | Black | | 490 | 525 | |
| Sandy Shale | Gray | | 525 | 550 | |
| Shale | Black | | 550 | 560 | |
| Sandy Shale | Gray | | 560 | 575 | |
| Sand | Gray | | 575 | 585 | |
| Sandy Shale | Gray | | 585 | 595 | |
| Coal | Black | | 595 | 601 | |
| Sandy Shale | Gray | | 601 | 648 | |
| Limy Shale | Gray | | 648 | 660 | |
| Red Rock | Red | | 660 | 672 | |
| Red Rock & Shale | Red & Gray | | 672 | 805 | |
| Shale | Gray | | 805 | 900 | |
| Red Rock & Shale | Red & Gray | | 900 | 925 | |
| Green Shale | Green | | 925 | 935 | |
| Shale | Gray | | 935 | 945 | |
| Green Slate | Gray | | 945 | 985 | |
| Red Rock | Red | | 985 | 990 | |

(Attach separate sheets to complete an occurrence)

Well Operator _____
by _____
its _____

NOTE: Regulation 1.0113 provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

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03/18/2016

Form 10-81
 Page 42 - Mike Bari Well No. 8-1848
 Carnegie Natural Gas Company - Drilling Permit No. 47-103-1129

DETAILS OF PERFORATED INTERVALS, PERCENTAGE OF PERFORATING FLUID, AND
 Fractured July 22, 1981.

Hole plugged back to: 5095.
 Perforations: 4177 - 4987 16 holes
 3336 - 3582 18 holes
 2969 - 3057 8 holes

| Fractured: | 1st Stage | 2nd Stage | 3rd Stage |
|------------|---------------------|---------------------|---------------------|
| | 20,000# 80-100 Sand | 20,000# 80-100 Sand | 10,000# 80-100 Sand |
| | 40,000# 20-40 Sand | 40,000# 20-40 Sand | 25,000# 20-40 Sand |
| | 500 Gals HCL Acid | 500 Gals. MSR Acid | 500 Gals. MSR Acid |
| | 500 Bbls. Water | 517 Bbls. Water | 450 Bbls. Water |

WELL LOG

| FORMATION | Color | Start in Feet | Top Feet | Bottom Feet | Remarks Including indication of all fresh and salt water, coal, oil and gas |
|-------------|--------------|---------------|----------|-------------|--|
| Green Shale | Green | | 990 | 1018 | |
| Shale | White | | 1018 | 1395 | |
| Sand | Gray | | 1395 | 1450 | |
| Shale | Gray | | 1450 | 1475 | |
| Sand | Gray | | 1475 | 1735 | |
| Red Rock | Red | | 1735 | 1770 | |
| Shale | Gray | | 1770 | 1795 | |
| Little Lime | Gray | | 1795 | 1800 | |
| Big Lime | White | | 1800 | 1900 | |
| Big Injun | White & Gray | | 1900 | 2070 | |
| Sandy Shale | Gray | | 2070 | 2130 | |
| Shale | Gray | | 2130 | 2200 | |
| Sand | Gray | | 2200 | 2325 | |
| Shale | Gray | | 2325 | 2505 | |
| Sand | Gray | | 2505 | 2545 | |
| Shale | Gray | | 2545 | 2595 | |
| Sand | Brown | | 2595 | 2630 | |
| Shale | Gray | | 2630 | 2660 | |
| Sand | Gray | | 2660 | 2690 | |
| Shale | Gray | | 2690 | 2720 | |
| Sand | Brown | | 2720 | 2755 | |
| Shale | Gray | | 2755 | 3410 | |
| Sand | Lt. Brown | | 3410 | 3440 | |
| Shale | Gray | | 3440 | 3900 | |
| Sand | Gray | | 3900 | 3930 | |
| Shale | Gray | | 3930 | 4050 | |
| Sand | Brown | | 4050 | 4080 | |
| Shale | Gray | | 4080 | 4770 | |
| Sand | Gray | | 4770 | 4835 | |
| Shale | Gray | | 4835 | 5330 | |
| Sand | Lt. Brown | | 5330 | 5360 | |
| Shale | Gray | | 5360 | | |
| Total Depth | | | | 5972 | |

(Attach separate sheets to describe or illustrate)

CARNEGIE NATURAL GAS COMPANY
 Well No. 8-1848
 by Kenneth G. Suray
 GEOLOGIST

NOTE: Application left to consider as follows:
 The term "formation" shall mean a geologically distinct physical part of all formations, including coal, encountered in the drilling of a well.

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 FEB 18 2016
 Louie Gross
 Chuck Smith
 Environmental Protection
 03/18/2016

WW-4-A
Revised 6/07

1) Date: February 11, 2016
2) Operator's Well Number
657241 (Barr #1848)
3) API Well No.: 47 103 - 01229
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL

| | |
|---|---------------------------------------|
| 4) Surface Owner(s) to be served: | 5) (a) Coal Operator: |
| (a) Name <u>Markwest Liberty Midstream & Resources, LLC</u> | Name <u>None</u> |
| Address <u>1515 Arapahoe Street</u> | Address _____ |
| <u>Suite 700</u> | _____ |
| <u>Denver, CO 80202</u> | _____ |
| (b) Name _____ | (b) Coal Owner(s) with Declaration |
| Address _____ | Name <u>Murray Energy Corporation</u> |
| _____ | Attn: <u>Alex O'Neill</u> |
| _____ | Address <u>46226 National Road</u> |
| (c) Name _____ | <u>St. Clairsville, OH 43950</u> |
| Address _____ | Name _____ |
| _____ | Address _____ |
| _____ | _____ |
| 6) Inspector <u>Derek Haught</u> | (c) Coal Lessee with Declaration |
| Address <u>P. O. Box 85</u> | Name <u>None</u> |
| <u>Smithville, WV 26178</u> | Address _____ |
| Telephone <u>(304) 206-7613</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 Division 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: | <u>EQT Production Company</u> |
| By: | <u>Victoria J. Roark</u> |
| Its: | <u>Permitting Supervisor</u> |
| Address: | <u>PO Box 280</u> |
| | <u>Bridgeport, WV 26330</u> |
| Telephone: | <u>(304) 848-0076</u> |

Subscribed and sworn before me this 17th day of February, 2016
Misty S. Christie Notary Public

My Commission Expires: 2/20/18

The Office of Oil & Gas processes your personal information, such as name, address and phone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



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February 18, 2016
Department of
Environmental Protection
03/18/2016

WW-9
Revised 2/03

Page _____ of _____

2) Operator's Well Number

657241 (Barr #1848)

3) API Well No.: 47 103 - 01229

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name: EQT PRODUCTION COMPANY OP ID: _____

Watershed: North Fork Fishing Creek Quadrangle: Big Run 7.5'

Elevation: 855 ft. County: Wetzel District: Grant

Description of anticipated Pit Waste: Formation Fluids

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

Will synthetic liner be used in the pit? Yes Is so, what ml.? 10 ml 20 ml minimum must be used TPW

Proposed Disposal Method for Treated Pit Wastes:

- Land Application
- Underground Injection - UIC Permit Number _____
- Reuse (at API Number) _____
- Offsite Disposal Permit #. _____
- Other: Explain _____

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____

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

Additives to be used? _____

Will closed loop system be used? _____

Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____

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 Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms 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.

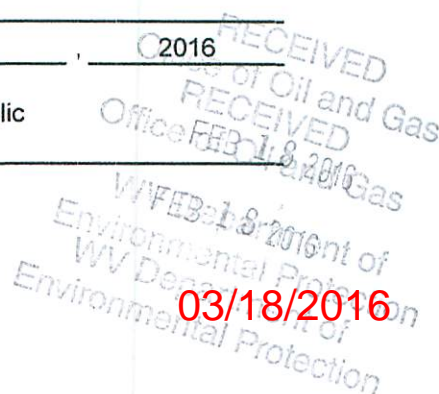
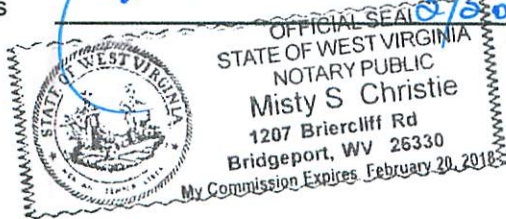
Company Official Signature *Victoria Roark*

Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

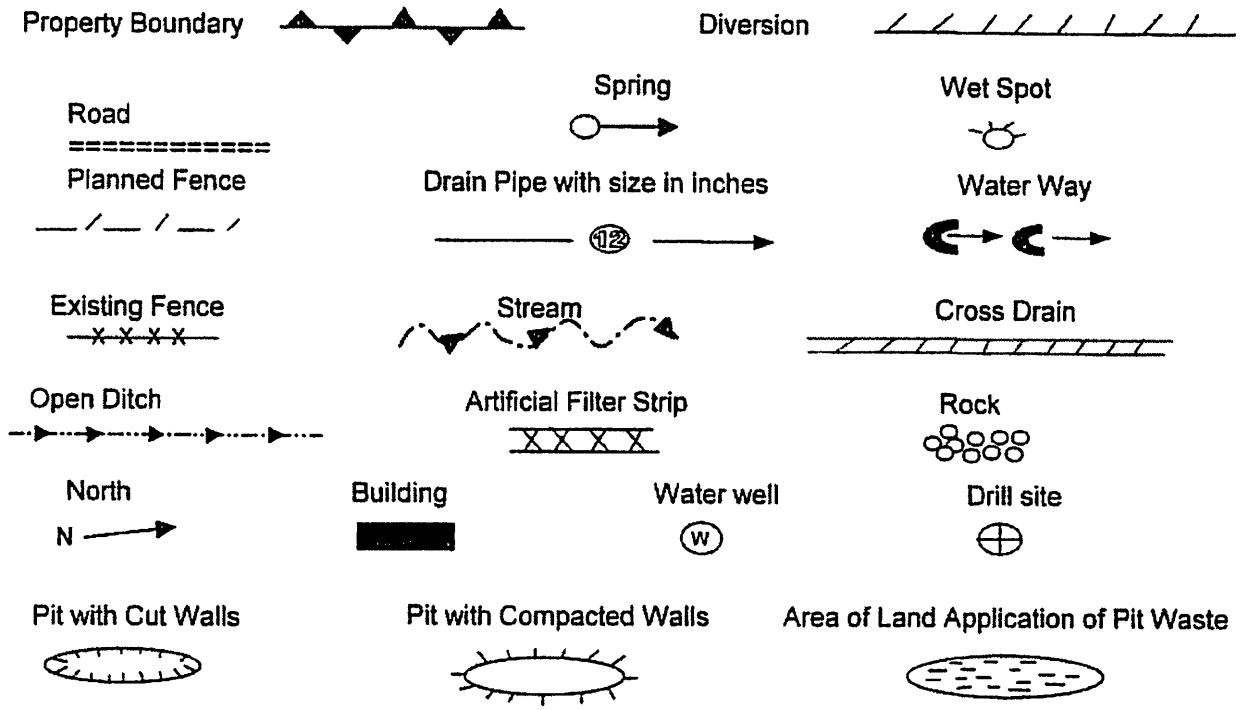
Subscribed and sworn before me this 17th day of February, 2016

Misty S. Christie Notary Public
My Commission Expires 2/20/18



OPERATOR'S WELL NO.:
657241 (Barr #1848)

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

SEED MIXTURES

| Area I | | Area II | |
|---------------|----------|---------------|----------|
| Seed Type | lbs/acre | Seed Type | lbs/acre |
| Red Fescue | 40 | Red Fescue | 15 |
| Alsike Clover | 5 | Alsike Clover | 5 |
| Annual Rye | 15 | | |
| | | | |

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

Plan approved by:

Comments: _____

Title: Oil & Gas Inspector Date: 2-19-16
 Field Reviewed? Yes No

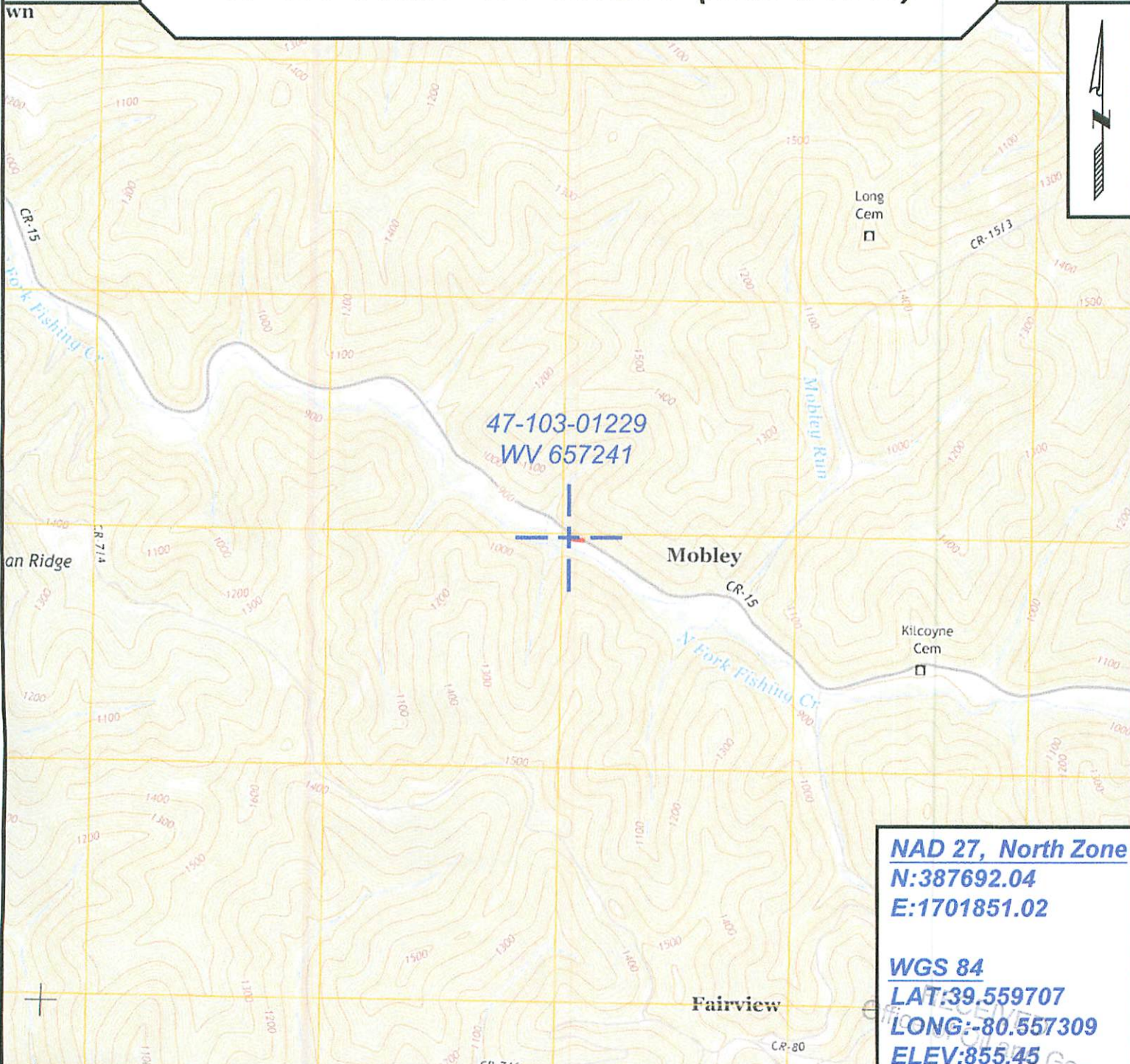
Topo Quad: Big Run 7.5' Scale: 1" = 2000'

County: Wetzel Date: January 29, 2016

District: Grant Project No: 40-34-00-09

47-103-01229 WV 657241 (Barr #1848)

Topo



47-103-01229
WV 657241

NAD 27, North Zone
N:387692.04
E:1701851.02

WGS 84
LAT:39.559707
LONG:-80.557309
ELEV:855.45



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 P.O. Box 280
 Bridgeport, WV 26330
 FEB 18 2016
 03/18/2016

WW-7
8-30-06



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

API: 47-103-01229 WELL NO.: WV 657241 (Barr #1848)

FARM NAME: S. J. Kilcoyne Estate

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Wetzel DISTRICT: Grant

QUADRANGLE: Big Run 7.5'

SURFACE OWNER: Markwest Liberty Midstream and Resources LLC

ROYALTY OWNER: CNX Gas Company LLC

UTM GPS NORTHING: 4378984

UTM GPS EASTING: 538030 GPS ELEVATION: 261 m (855 ft)

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 South, 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 : Post Processed Differential
Real-Time Differential

Mapping Grade GPS X: Post Processed Differential X
Real-Time Differential

4. **Letter size copy of the topography map showing the well location.**

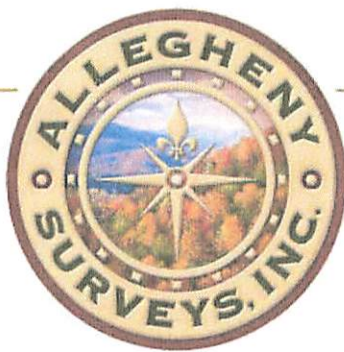
I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Steve Brown
Signature

PS # 2180
Title

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Office of Oil and Gas
FEB 18 2016
Date 2/18/16
Department of
Environmental Protection

03/18/2016



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
LEASE NAME AND WELL No. Barr #1848 - WV 657241 - API No. 47-103-01229

POTENTIAL SAMPLE LOCATIONS

Site: 1 Spacing: 384 +/- Owner: EQT Production Company
Address: 1710 Pennsylvania Avenue, Charleston, WV 25302 Phone No. _____
Comments: Gas well on this property.

RECEIVED
Office of Oil and Gas

FEB 18 2016
MARTINSBURG OFFICE
25 Lights Addition Drive
Martinsburg, WV 25404
Phone: 304-901-2162
Fax: 304-901-2182

BIRCH RIVER OFFICE
237 Birch River Road
Birch River, WV 26610
phone: 304-649-8606
fax: 304-649-8608

BRIDGEPORT OFFICE
172 Thompson Drive
Bridgeport, WV 26330
phone: 304-848-5035
fax: 304-848-5037

ALUM CREEK OFFICE
P.O. Box 108 • 1413 Childress Rd
Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948

MARTINSBURG OFFICE
25 Lights Addition Drive
Martinsburg, WV 25404
Phone: 304-901-2162
Fax: 304-901-2182

03/18/2016

Topo Quad: Big Run 7.5'

Scale: 1" = 2000'

County: Wetzel

Date: January 29, 2016

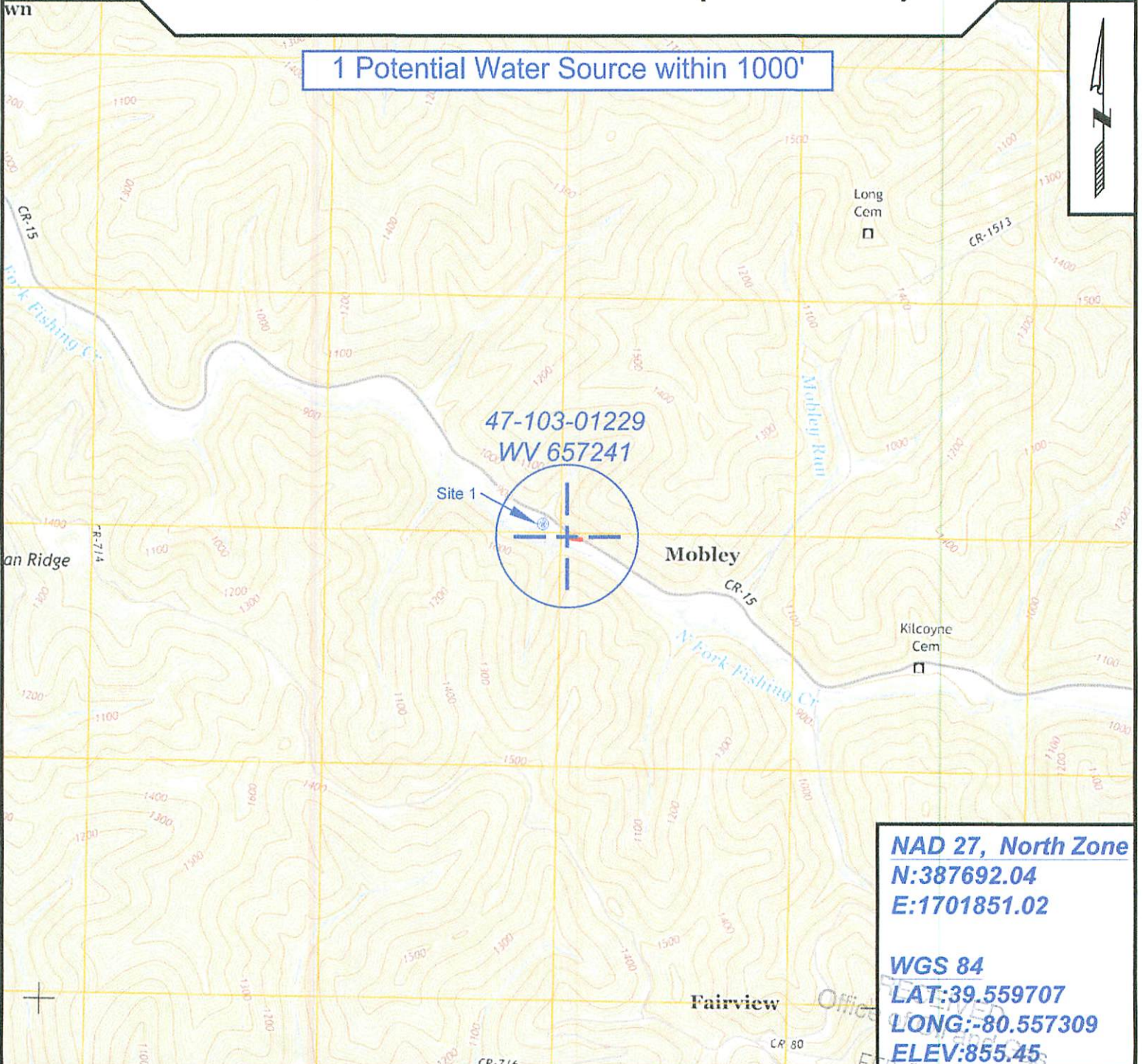
District: Grant

Project No: 40-34-00-09

Water

47-103-01229 WV 657241 (Barr #1848)

1 Potential Water Source within 1000'



47-103-01229
WV 657241

Site 1

Moblely

Fairview

NAD 27, North Zone
N:387692.04
E:1701851.02

WGS 84
LAT:39.559707
LONG:-80.557309
ELEV:855.45



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606
237 Birch River Road
Birch River, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

03/18/2016