Monday, January 08, 2018
WELL WORK PERMIT
Vertical / Plugging

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700
PITTSBURGH, PA 15222

Re: Permit approval for RINEHART 1
47-041-01363-00-00

This well work permit 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 any additional specific 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin
Chief

Operator's Well Number: RINEHART 1
Farm Name: RINEHART, B. J.
U.S. WELL NUMBER: 47-041-01363-00-00

Date Issued: 1/8/2018

Promoting a healthy environment.
PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.

2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.

3. Well work activities shall not constitute a hazard to the safety of persons.

4. This well is under a consent order and must be plugged under the terms of that agreement.
**APPLICATION FOR A PERMIT TO PLUG AND ABANDON**

4) Well Type: Oil  X  Gas  X  Liquid Injection  X  Waste Disposal  X
   If Gas, Production  X  Or Underground storage  Deep  Shallow  X

5) Elevation: 851 ft. Watershed:  Walnut Fork
   Location: Freemans Creek  County: Lewis
   District:  

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

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

8) Oil & Gas  Barry Stollings
   Name: 28 Conifer Drive
   Address: Bridgeport, WV 26330

9) Plugging Contractor:  Name: HydroCarbon Well Service
   Address: PO BOX 995
   Address: 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.

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OK  grant for Barry Stollings  11/8/2018

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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  

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RECEIVED
Office of Oil and Gas

NOV 22 2017

WV Department of Environmental Protection
PLUGGING PROGNOSIS

Rinehart, B.J. # 658 (651931)
Lewis Co. WV
District, Freemans Creek
API # 47-041-01363

BY: Craig Duckworth
DATE: 1/30/17

CURRENT STATUS:

10" csg @ 120' (pulled)
8 1/4" csg @ 825' (pulled)
6 5/8" csg @ 1508'
3" tbg @ 1624' (packer @ 1582' after frac.)
2" tbg @ 1542' (pulled)

Elevation @ 861'

TD: 2416' (plugged to 1642')

Fresh Water @ None Reported Coal @ None Reported
Saltwater @ None Reported
Gas shows @ 1500'-1566'
Oil @ None Reported
Perforated @

Removed 2" Tubing and cleaned out to 1700', set
permanent bridge at 1700'. Filled with stone & clay
to 1670' and cement to 1642'. Run 1638' of 3 1/2" tubing
with 7" x 3" Hold Down Tension Packer set at 1582'
with 42' of Tail pipe.
Fractured 10-28-64 by Dowell with 45,000# of sand &
1009 bbls. of water. Breakdown pressure 1500 to 2500#,
Injection pressure 2700# at the rate of 24.6 bbls.
per minute. Test before fracture 5,000 cu. ft., Rock
pressure 500# in 72 hours. Test after fracture
1,565,000 cu. ft. Rock pressure 380# in 1 hour.
1. Notify State Inspector, Barry Stollings 304-552-4194, 48 hrs. prior to commencing operations.
2. Check TD w/wireline
3. Attempt to pull 3” w/packer @ 1582’ if unable to pull. Run bond log to find freepoint of 3”, cut 3” @ free point and pull.
4. TIH w/tbg to 1642’, set 200’ C1A cement plug from 1642’ to 1442’. (Gas show @ 1500’-1566 & 6 5/8” @ 1508’)
5. TOOH w/tbg to 1442’ gel hole 1442’ to 1200’.
6. TOOH w/tbg, Free point 6 5/8” csg, cut csg @ free point, TOOH w/csg.
7. 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.
8. TIH w/tbg to 1200’ set 200’ C1A cement plug from 1200’ to 1000’, (6 5/8” csg cut @ 1100’est.
9. TOOH w/tbg to 1000’ gel hole 1000’ to 900’.
10. TOOH w/tbg to 900’, set 100’ C1A cement plug 900’ to 800’. (8 1/4” csg seat @ 825’pulled & elevation @ 861’).
11. TOOH w/tbg to 800’ gel hole from 800’ to 200’.
12. TOOH w/tbg to 200’, set 200’ C1A cement plug, 200’ to 0’. (10” csg seat @ 120’pulled)
13. Erect monument with API#, Date plugged, EQT
14. Reclaim location and road to WV-DEP specifications.
State of West Virginia
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD
WELL TO BE FRACATURED

Company: Carnegie Natural Gas Company
Address: 3201 Main Street, Pittsburgh, Pa. 15121

Permit No.: 363

<table>
<thead>
<tr>
<th>Casing and Tubing</th>
<th>Used in Drilling</th>
<th>Left in Well</th>
<th>Packers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Size</td>
<td>Kind of Packers</td>
<td>Wall</td>
</tr>
<tr>
<td>14&quot;</td>
<td>15&quot;</td>
<td>15/16&quot; x 2</td>
<td></td>
</tr>
<tr>
<td>12&quot;</td>
<td>12&quot;</td>
<td>1508</td>
<td></td>
</tr>
<tr>
<td>10&quot;</td>
<td>10&quot;</td>
<td>1508</td>
<td></td>
</tr>
<tr>
<td>8 1/4&quot;</td>
<td>8 1/4&quot;</td>
<td>1542</td>
<td></td>
</tr>
<tr>
<td>6 1/4&quot;</td>
<td>6 1/4&quot;</td>
<td>1542</td>
<td></td>
</tr>
</tbody>
</table>

Liners Used

Perf. top.
Perf. bottom.
Perf. top.
Perf. bottom.

Casing Cemented

Size
No. Ft.
Date

Coal Was Encountered At

Feet
Inches

Feet
Inches
Feet
Inches

Well Acidized

Well Fractured

result after treatment

Rock Pressure After Treatment

Fresh Water

Salt Water

<table>
<thead>
<tr>
<th>Formation</th>
<th>Color</th>
<th>Hard or Soft</th>
<th>Top</th>
<th>Bottom</th>
<th>Oil, Gas or Water</th>
<th>Depth</th>
<th>Remarks</th>
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<td>Conductor</td>
<td></td>
<td></td>
<td>440</td>
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<tr>
<td>Little Dunkard</td>
<td></td>
<td></td>
<td>540</td>
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<tr>
<td>Big Dunkard</td>
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<td>650</td>
<td>690</td>
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<tr>
<td>Gas Sand</td>
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<td></td>
<td>790</td>
<td>865</td>
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<td></td>
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<tr>
<td>1st Salt Sand</td>
<td></td>
<td></td>
<td>1000</td>
<td>1230</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2nd Salt Sand</td>
<td></td>
<td></td>
<td>1348</td>
<td>1363</td>
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<tr>
<td>Marion</td>
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<td>1375</td>
<td>1390</td>
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<td>Little Lime</td>
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<td></td>
<td>1390</td>
<td>1400</td>
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</tr>
<tr>
<td>Pencil Caves</td>
<td></td>
<td></td>
<td>1400</td>
<td>1450</td>
<td></td>
<td></td>
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<tr>
<td>Big Lime</td>
<td></td>
<td></td>
<td>1450</td>
<td>1644</td>
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<tr>
<td>Big Injun</td>
<td></td>
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<td>1653</td>
<td>1813</td>
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<td>Gentry Sand</td>
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<td>1820</td>
<td>2010</td>
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<td>30 Foot Sand</td>
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<td></td>
<td>2100</td>
<td>2101</td>
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<td>Gordon Sand</td>
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<td></td>
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</tr>
</tbody>
</table>

Total Depth: 2416

(over)
STATE OF WEST VIRGINA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Oil & Gas Well

<table>
<thead>
<tr>
<th>Company</th>
<th>Carnegie Natural Gas Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>280th Main Street, Mephia, PA, 15223</td>
</tr>
<tr>
<td>Farm</td>
<td>B. J. Rinshart</td>
</tr>
<tr>
<td>Acres</td>
<td>100</td>
</tr>
<tr>
<td>Location (water)</td>
<td>Walnut Fork</td>
</tr>
<tr>
<td>Well No.</td>
<td>1-357</td>
</tr>
<tr>
<td>Elev.</td>
<td>863</td>
</tr>
<tr>
<td>District</td>
<td>Preble</td>
</tr>
<tr>
<td>County</td>
<td>Lewis</td>
</tr>
<tr>
<td>The surface of the tract is owned in fee by</td>
<td>Address</td>
</tr>
<tr>
<td>Mineral rights are owned by</td>
<td>See below</td>
</tr>
<tr>
<td>Drilling commenced</td>
<td>Date</td>
</tr>
<tr>
<td>Drilling completed</td>
<td>2</td>
</tr>
<tr>
<td>Date Shot</td>
<td>From</td>
</tr>
<tr>
<td>Open Flow</td>
<td>/10ths Water</td>
</tr>
<tr>
<td>Volume</td>
<td>Cu. Ft.</td>
</tr>
<tr>
<td>Rock Pressure</td>
<td>lbs.</td>
</tr>
<tr>
<td>Oil</td>
<td>bbls, 1st 24 hours</td>
</tr>
<tr>
<td>WELL ACIDIZED</td>
<td></td>
</tr>
<tr>
<td>WELL FRACUTRED</td>
<td>10-28-61</td>
</tr>
</tbody>
</table>

RESULT AFTER TREATMENT | 1,565,000 Cu. Ft. |

Rock Pressure After Treatment | 350# - 1 hour |

<table>
<thead>
<tr>
<th>Formation</th>
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<tbody>
<tr>
<td>Removed 2&quot; tubing and cleaned out to 1700'</td>
<td>Set permanent bridge at 1700'</td>
<td>Filled with stone and clay to 1670' and cement to 1642'</td>
<td>Run 1638' of 3½/2&quot; tubing</td>
<td>3½/2&quot; of tail pipe</td>
<td>Compressed cleaning out 9-25-61</td>
<td>10-30-61</td>
<td>East before fracture - 5,000 cu. ft. and 350# R.P in 72 hours</td>
</tr>
<tr>
<td>Total depth is now 1642'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mineral Rights owned by:

- Gletta Rinshart: Box 16, Alum Bridge, W. Va.
- C. H. Coster - Deceased
1. The undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Error in closure: 1/3000

B.M. Hurst, Chief of Survey, 40 feet below top: Bronze Tablet Stamped "BIG GROTON" 84.950

Company: CARNegie NATuRAL GAS
Address: 3904 MAIN ST, MUNHALL, PA
Form: J. J. PINEHART
Tract: Acres: 100, Lease No. 57927-92
Well (Form) No.: 1, Serial No. E659
Elevation (Spirit Level): 861
Quadrangle: NAVIG
County: LEWIS, District: FREEMANS
Engineer: J. J. PINEHART
Engineer's Registration No.: 1850
File No.: Drawing No.: 10-6-63 Scale 1" = 1000'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON
WELL LOCATION MAP
FILE NO.: LEW-1963-FRAC

* Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

* Denotes one inch spaces on border line of original filing.
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:
   (a) Name: Joseph and Sarah King
   Address: 238 Walnut Fork
             Alum Bridge, WV 26321
   (b) Name: 
   Address: 
   (c) Name: 
   Address: 

5) (a) Coal Operator:
   Name: 
   Address: 
   (b) Coal Owner(s) with Declaration
   Name: Blackhawk Mining
   Address: 3228 Summit Square Place
             Suite 180
             Lexington, KY 40509
   (c) Coal Lessee with Declaration
   Name: None
   Address: 

6) Inspector
   Name: Barry Stollings
   Address: 28 Conifer Drive
             Bridgeport, WV 26330
   Telephone: (304) 552-4194

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 reverse side. However, you are not required to take any action at all.

Take notice that under Chapter 22-8 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: EQT Production Company
By: Victoria J. Roark
Its: Regional Land Supervisor
Address: PO Box 280
         Bridgeport, WV 26330
Telephone: (304) 848-0076

Subscribed and sworn before me this 14th day of November, 2017

My Commission Expires: 2-2013

The Office of Oil & Gas processes your personal information, such as name, address and phone numbers, 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 dep.privacyofficer@wv.gov.
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
FLUIDS / CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name: EQT PRODUCTION COMPANY
OP CODE: __________

Watershed (HUC 10): Walnut Fork Quadrangle: Vadis 7.5'
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes __ No __
Will a pit be used? Yes ___ No __
If so, please describe anticipated pit waste:
Will a synthetic liner be used in the pit? Yes ___ No ___ Is so, what ml.? ___________

Proposed Disposal Method for Treated Pit Wastes:

Land Application (if selected provide a completed form WW-9-GPP)
Underground Injection (UIC Permit Number ____________)
X Reuse (at API Number ____________)
X Off Site Disposal Permit (Supply form WW-9 for disposal location. See attachment)
Other: (Explain ____________)

Will closed loop system be used? If so, describe:
Drilling medium anticipated for this well? (vertical and horizontal)? Air, freshwater, oil based, etc. ____________
   If oil based, what type? Synthetic, petroleum, etc. ____________
Additives to be used in drilling medium?
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? ____________

Permittee shall provide written notice to the Office of the Oil and Gas of any load of drill cuttings or associated waste rejected at an
West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose
where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on
April 1, 2016, 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 term or condition of the general permit and/or other applicable
law or regulation can lead to enforcement action.

application form and all attachments thereto that, based on my inquiry of those individuals immediately responsible for
obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant
penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature

Company Official (Typed Name) Victoria J. Roark

Company Official Title Regional Land Supervisor - WV

Subscribed and sworn before me this 14th day of November

My Commission Expires 2/20/18

Notary Seal

Misty S. Christie
Notary Public
1297 Briercliff Rd.
Bridgeport, WV 26330
My Commission Expires January 30, 2018
Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 6.5
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

<table>
<thead>
<tr>
<th>Seed Type</th>
<th>Area I</th>
<th>Area II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed Type</td>
<td>lbs/acre</td>
<td>Seed Type</td>
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<tr>
<td>Red Fescue</td>
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<td>Red Fescue</td>
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<tr>
<td>Alsike Clover</td>
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<td>Alsike Clover</td>
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<tr>
<td>Annual Rye</td>
<td>15</td>
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<tr>
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</tr>
</tbody>
</table>

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: ______________________________________________________________________________

Field Reviewed? Yes No
EQT Production Water plan
Offsite disposals

Waste Management - Meadowfill Landfill
Rt. 2, Box 68 Dawson Drive
Bridgeport, WV 26330
304-326-6027
Permit #SWF-1032-98
Approval #100785WV

Waste Management - Northwestern Landfill
512 E. Dry Road
Parkersburg, WV 26104
304-428-0602
Permit #SWF-1025 WV-0190400
Approval #100833WV

RECEIVED
Office of Oil and Gas

NOV 22 2017

WV Department of Environmental Protection
POTENTIAL WATER SAMPLE DATA SHEET

CLIENT:  EQT PRODUCTION COMPANY
LEASE NAME AND WELL No.  Rinehart #658  WV 651931  47-041-01363

POTENTIAL SAMPLE LOCATIONS

Site: 1  Spacing: 941  
Owner: Joseph S. & Sara King
Address: 238 Walnut Fork, Alum Bridge, WV 26321
Phone No.
Comments:

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

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

ALUM CREEK OFFICE
P.O. Box 308 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
47-041-01363 WV 651931 (Rinehart #658)

1 Potential Water Source within 1000'

NAD 27, South Zone
N:743435.06
E:2088015.22

WGS 84
LAT:39.041260
LONG:-80.689973
ELEV:851.18
West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-041-01363   WELL NO.: WV 651931 (Rinehart #658)

FARM NAME: B. J. Rinehart

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Lewis                       DISTRICT: Freemans Creek

QUADRANGLE: Vadis 7.5'

SURFACE OWNER: Joseph & Sarah King

ROYALTY OWNER: Nancy J. White, et al.

UTM GPS NORTHING: 4321401

UTM GPS EASTING: 526830       GPS ELEVATION: 259 m (851 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:
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
   Survey grade GPS _________: Post Processed Differential_________
   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

Title

Date