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WR-35  
Rev. 8/23/13

Page \_\_\_ of \_\_\_

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47 - 103 - 03038 County Wetzel District Grant  
Quad Pine Grove Pad Name PNG103 Field/Pool Name \_\_\_\_\_  
Farm name Sharon Ann Scyoc Well Number 513983  
Operator (as registered with the OOG) EQT Production Company  
Address 625 Liberty Ave. EQT Plaza, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,379,601 Easting 532,084  
Landing Point of Curve Northing 4,379,685 Easting 532,926  
Bottom Hole Northing 4,378,531 Easting 533,228

Elevation (ft) 1,458' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine

Mud Type(s) and Additive(s)  
SBM 13.2 ppg – powdered hydrocarbon resin, calcium carbonate, ground almond hulls, barium sulfate, calcium chloride, lecithin liquid, organophilic clay,  
partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 10/22/2014 Date drilling commenced 10/24/2014 Date drilling ceased 02/04/2015  
Date completion activities began 3/27/2015 Date completion activities ceased 4/2/2015  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 783 Open mine(s) (Y/N) depths \_\_\_\_\_  
Salt water depth(s) ft 2,493' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1,173' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by:  
JK 6/25/15

AX WS 05/27/16

API 47- 103 - 03038

Farm name Sharon Ann Scyoc

Well number 513983

| CASING STRINGS            | Hole Size | Casing Size | Depth   | New or Used | Grade wt/ft    | Basket Depth(s) | Did cement circulate (Y/ N)<br>* Provide details below* |
|---------------------------|-----------|-------------|---------|-------------|----------------|-----------------|---|
| Conductor                 | 30"       | 26"         | 80'     | NEW         | A-500 40LB/FT  | NONE            | Y   |
| Surface                   | 17.5"     | 13.375"     | 1,298'  | NEW         | J-55 54.5LB/FT | 154', 493'      | Y   |
| Coal                      |           |             |         |             |                |                 |   |
| Intermediate 1            | 12.375"   | 9.625"      | 3,370'  | NEW         | P-110 40LB/FT  | 1,510', 1,974'  | Y   |
| Intermediate 2            |           |             |         |             |                |                 |   |
| Intermediate 3            |           |             |         |             |                |                 |   |
| Production                | 8.5"      | 5.5"        | 12,728' | NEW         | P-110 20LB/FT  | NONE            | N   |
| Tubing                    |           |             |         |             |                |                 |   |
| Packer type and depth set |           |             |         |             |                |                 |   |

Comment Details \_\_\_\_\_

| CEMENT DATA    | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft <sup>3</sup> /sks) | Volume (ft <sup>3</sup> ) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|-----------------|-----------------|------------------------------|---------------------------|-----------------|-----------|
| Conductor      | CLASS A              | 98              | 15.6            | 1.18                         | 115.64                    | 0               | 8         |
| Surface        | CLASS A              | 1,120           | 16.0            | 1.14                         | 1,276.8                   | 0               | 8         |
| Coal           |                      |                 |                 |                              |                           |                 |           |
| Intermediate 1 | CLASS A              | 1,285           | 15.6            | 1.18                         | 1,516.3                   | 0               | 8         |
| Intermediate 2 |                      |                 |                 |                              |                           |                 |           |
| Intermediate 3 |                      |                 |                 |                              |                           |                 |           |
| Production     | Class A / Class H    | 920/536         | 14.2/15.2       | 1.26/1.97                    | 2215.12                   | 4,000           | 72        |
| Tubing         |                      |                 |                 |                              |                           |                 |           |

Drillers TD (ft) 12,728' MD \_\_\_\_\_ Loggers TD (ft) N/A \_\_\_\_\_  
 Deepest formation penetrated Marcellus \_\_\_\_\_ Plug back to (ft) N/A \_\_\_\_\_  
 Plug back procedure N/A \_\_\_\_\_

Kick off depth (ft) 3,735' MD \_\_\_\_\_

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No  Conventional  Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

CONDUCTOR- NONE  
 SURFACE- JOINTS: 1,13,25  
 INTERMEDIATE- RAN AT LEAST EVERY 500' FEET JOINTS: 1,12,24,36,48,60,72  
 Production- 203 Composite bodied centralizers on every joint from TD up to 4,000'

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_





API 47- 103 - 03038 Farm name Sharon Ann Scyoc Well number 513983

Drilling Contractor Savanna Drilling  
Address 2204 Timberloch Place Suite 230 City Woodlands State TX Zip 77380

Logging Company GYRODATA  
Address 601 MAYER ST City BRIDGEVILLE State PA Zip 15017

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company NABORS CEMENTING SERVICESRS  
Address 2504 SMITH CREEK ROAD City WAYNESBURG State PA Zip 15370

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## API 47 - 103 - 03038

| Formation Name   | Final Top MD (ftGL) (ft) | Final Top TVD (ft) | Final Btm MD (ftGL) (ft) | Final Btm TVD (ft) |
|------------------|--------------------------|--------------------|--------------------------|--------------------|
| FRESH WATER ZONE | 0                        | 0                  | 783                      | 783                |
| SAND/SHALE       | 0                        | 0                  | 1,060                    | 1,060              |
| COAL             | 1,060                    | 1,060              | 1,064                    | 1,064              |
| SAND/SHALE       | 1,064                    | 1,064              | 1,167                    | 1,167              |
| COAL             | 1,167                    | 1,167              | 1,173                    | 1,173              |
| SAND/SHALE       | 1,173                    | 1,173              | 2,306                    | 2,306              |
| MAXTON           | 2,306                    | 2,306              | 2,523                    | 2,523              |
| BIG LIME         | 2,523                    | 2,523              | 2,795                    | 2,795              |
| WEIR             | 2,795                    | 2,795              | 2,994                    | 2,994              |
| GANTZ            | 2,994                    | 2,994              | 3,114                    | 3,114              |
| 50F              | 3,114                    | 3,114              | 3,190                    | 3,190              |
| 30F              | 3,190                    | 3,190              | 3,242                    | 3,242              |
| GORDON           | 3,242                    | 3,242              | 3,324                    | 3,324              |
| 4TH              | 3,324                    | 3,324              | 3,450                    | 3,450              |
| BAYARD           | 3,450                    | 3,450              | 3,904                    | 3,902              |
| WARREN           | 3,904                    | 3,902              | 4,056                    | 4,052              |
| SPEECHLEY        | 4,056                    | 4,052              | 5,951                    | 5,567              |
| ELKS             | 5,425                    | 5,180              | 7,900                    | 7,043              |
| BENSON           | 5,951                    | 5,567              | 6,371                    | 5,884              |
| ALEXANDER        | 6,371                    | 5,884              | 5,425                    | 5,180              |
| SONYEA           | 7,900                    | 7,043              | 8,136                    | 7,211              |
| MIDDLESEX        | 8,136                    | 7,211              | 8,198                    | 7,252              |
| GENESEE          | 8,198                    | 7,252              | 8,345                    | 7,337              |
| GENESEO          | 8,345                    | 7,337              | 8,397                    | 7,364              |
| TULLY            | 8,397                    | 7,364              | 8,449                    | 7,389              |
| HAMILTON         | 8,449                    | 7,389              | 8,725                    | 7,470              |
| MARCELLUS        | 8,725                    | 7,470              | 12,728                   | 7,519              |







# Hydraulic Fracturing Fluid Product Component Information Disclosure

|                                |                    |
|--------------------------------|--------------------|
| Job Start Date:                | 3/27/2015          |
| Job End Date:                  | 4/2/2015           |
| State:                         | West Virginia      |
| County:                        | Wetzel             |
| API Number:                    | 47-103-03038-00-00 |
| Operator Name:                 | EQT Production     |
| Well Name and Number:          | 513983             |
| Longitude:                     | -80.62666900       |
| Latitude:                      | 39.56542500        |
| Datum:                         | NAD83              |
| Federal/Tribal Well:           | NO                 |
| True Vertical Depth:           | 7,519              |
| Total Base Water Volume (gal): | 6,448,806          |
| Total Base Non Water Volume:   | 0                  |



## Hydraulic Fracturing Fluid Composition:

| Trade Name              | Supplier    | Purpose                  | Ingredients                               | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|-------------------------|-------------|--------------------------|---|--|--|--|----------|
| Water                   | Keane Group | Carrier/Base Fluid       | Water                                     | 7732-18-5                                | 100.00000  | 90.18684   | None     |
| Sand (Proppant)         | Keane Group | Proppant                 | Silica Substrate                          | 14808-60-7                               | 100.00000  | 9.36257  | None     |
| MC MX 437-5             | Multi-Chem  | Calcium nitrate solution | Calcium nitrate                           | 10124-37-5                               | 60.00000   | 0.05760  | None     |
| Hydrochloric Acid (15%) | Keane Group | Acidizing                | Hydrochloric Acid                         | 7647-01-0                                | 15.00000   | 0.03810  | None     |
| SL 1072                 | Keane Group | Friction Reducer         | Petroleum distillates, hydrotreated light | 64742-47-8                               | 25.00000   | 0.01849  | None     |
| EC6330A                 | Keane Group | Scale Inhibitor          | Sodium Phosphate, Tribasic                | 7601-54-9                                | 5.00000  | 0.00128  | None     |
| AI 600                  | Keane Group | Corrosion Inhibitor      | Ethylene Glycol                           | 107-21-1                                 | 40.00000   | 0.00025  | None     |
|                         |             |                          | N, N-Dimethylformamide                    | 68-12-2                                  | 20.00000   | 0.00013  | None     |
|                         |             |                          | Cinnamialdehyde                           | 104-55-2                                 | 15.00000   | 0.00010  | None     |
|                         |             |                          | 2-Butoxyethanol                           | 111-76-2                                 | 15.00000   | 0.00010  | None     |

|  |             |             |   |             |          |         |      |
|--|-------------|-------------|---|-------------|----------|---------|------|
|  |             |             | Tar bases, quinoline derivs,<br>benzyl chloride-quatemized                          | 72480-70-7  | 15.00000 | 0.00010 | None |
|  |             |             | Poly (oxy-1,2-ethanediyl),<br>.alpha.-(4-nonylphenyl)-.omega.-<br>hydroxy-.branched | 127087-87-0 | 5.00000  | 0.00003 | None |
|  |             |             | 1-Decanol   | 112-30-1    | 5.00000  | 0.00003 | None |
|  |             |             | 1-Octanol   | 111-87-5    | 2.50000  | 0.00002 | None |
|  |             |             | Isopropyl alcohol   | 67-63-0     | 2.50000  | 0.00002 | None |
|  |             |             | Triethyl Phosphate  | 78-40-0     | 2.50000  | 0.00002 | None |
| LEB-10X  | Keane Group | Gel Breaker |   |             |          |         |      |
|  |             |             | Ethylene Glycol   | 107-21-1    | 30.00000 | 0.00014 | None |
| Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS. |             |             |   |             |          |         |      |

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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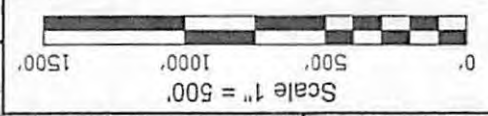




**ALLEGHENY SURVEYS, INC.**  
 SURVEYING AND MAPPING SERVICES PERFORMED BY:  
 Birch River Office  
 Phone: (304) 649-8606  
 Fax: (304) 649-8608  
 P.O. Box 438  
 237 Birch River Road  
 Birch River, WV 26610  
 1-800-482-8606

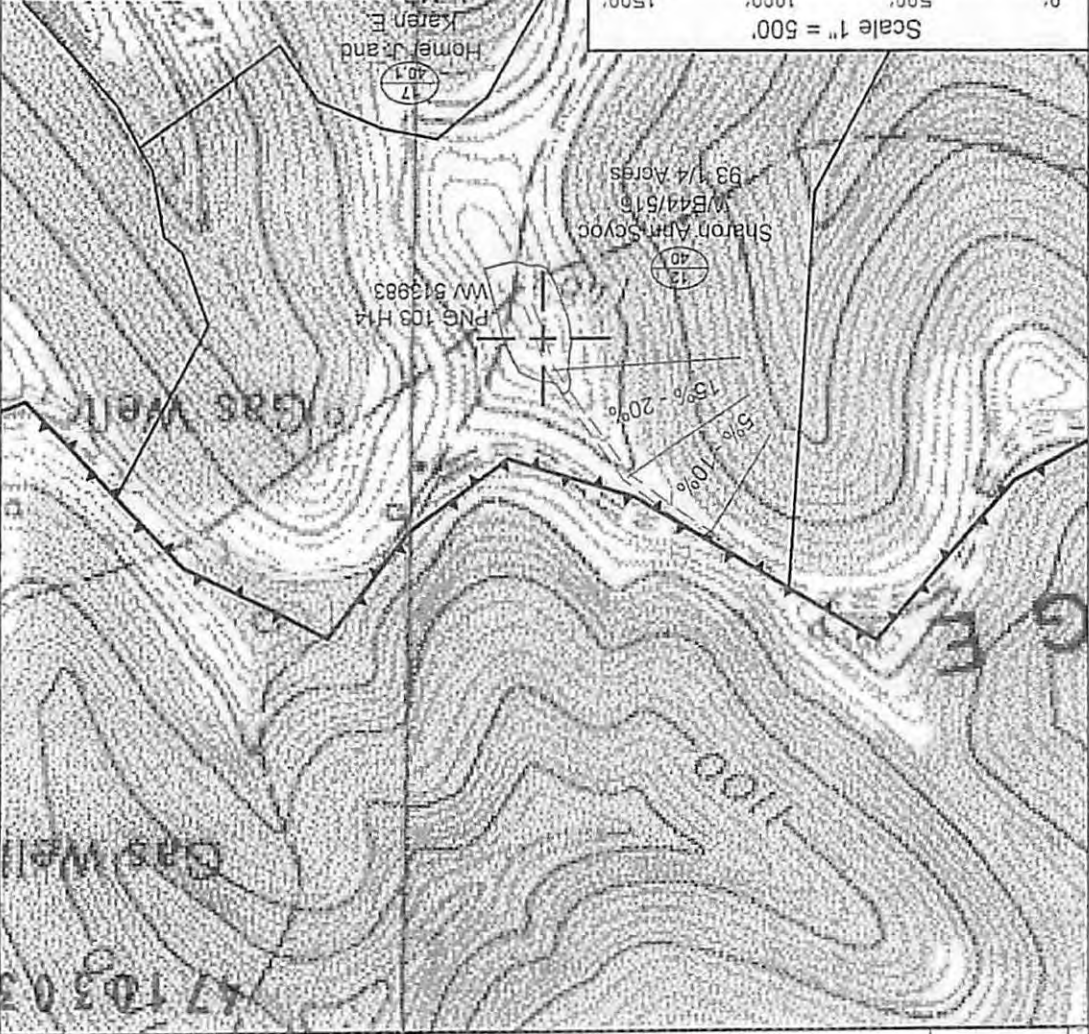
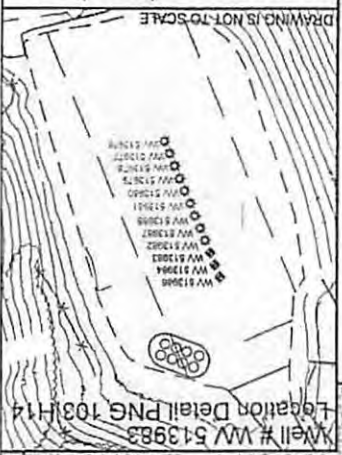
|   |                            |
|---|----------------------------|
| DATE  | August 21, 2014            |
| FILE NO.  | 212-34-C-10                |
| DRAWING FILE NO.  | 212-10 PNG103 H14 Rec Plan |
| DRAWN BY: Dale Tomlin PS  |                            |
| SECTION OF THE<br>Pine Grove 7.5 USGS QUADRANGLE<br>(for bid purposes only) |                            |
| 12" minimum diameter culverts   | 0 Culverts                 |
| 15" minimum diameter culverts   | 0 Culverts                 |

Operator is responsible for the coordination with contractor and Allegheny Surveys regarding any changes or additions the state may require.  
 Gas Inspector:  
 Additional culverts and/or other drainage structures and sediment control devices may be required by the WV D.E.P. Oil & Gas Inspector.  
 Applications for separate Public Land Corporation Permits on the access roads stream crossings have been prepared (if applicable).  
 Stacked brush may be used for sediment control.  
 Cut and stack all marketable timber.  
 Temporary seed and mulch at slopes after construction of location.  
 Earthwork contractors are responsible for notification to the operator and inspector prior to any deviation from this plan.  
 Erosion control measures shall be enacted as required.  
 Sediment basins (traps), and appropriate erosion control barriers are to be constructed at all culverts and cross-drains as required in the aforementioned Erosion and Sediment Control Field Manual. Where field conditions dictate, alternative erosion control measures may be required.  
 Eriances upon county/state roads shall be maintained in accordance with WV D.O.T. regulations; however, separate permits may be required by the WV D.O.T.  
 Unless otherwise noted, all roads shown hereon are existing and shall be maintained in accordance with WV D.E.P. Office of Oil and Gas Erosion and Sediment Control Field Manual as revised 2/98.  
 Denotes to install 12" minimum culvert  
 Denotes a proposed stream crossing (if applies)  
 See table for culvert detail.



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 DMH

AREA OF LAND APPLICATION  
 PIT-CONCRETE WALLS  
 P11-CUT WALLS  
 CROSS DRAIN  
 PROPOSED CULVERT  
 EXISTING CULVERT  
 EXISTING GATE  
 ROAD RATES 212  
 LEGAL WELL  
 SILENT FENCE  
 DITCH  
 ROAD  
 HOME PATH  
 PROPERTY BOUNDARY  
 LEASE BOUNDARY

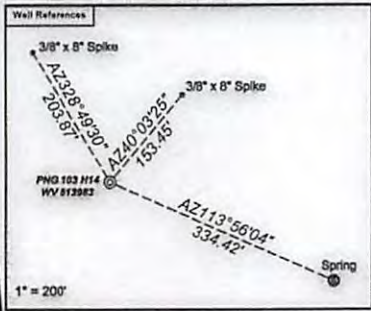


47 103 03 038

460'

**WV 513983**  
**EQT Production Company**  
**Shiben Estates, Inc.**  
**1104 acres**

LATITUDE 39 - 35 - 00



**Notes:**  
 WV 513983 coordinates are  
 NAD 27 N: 390,042 E: 1,682,376  
 NAD 27 Lat: 39.565508 Long: 80.626483  
 NAD 83 UTM N: 4,379,601 E: 532,084  
 WV 513983 Landing Point coordinates are  
 NAD 27 N: 390,080 E: 1,685,220  
 NAD 27 Lat: 39.565708 Long: 80.616400  
 NAD 83 UTM N: 4,379,627 E: 532,951  
 WV 513983 Bottom Hole coordinates are  
 NAD 27 N: 386,474 E: 1,686,085  
 NAD 27 Lat: 39.555839 Long: 80.613172  
 NAD 83 UTM N: 4,378,533 E: 533,233  
 West Virginia Coordinate system of 1927 (North Zone).  
 Geographic coordinates are NAD27.  
 UTM coordinates are NAD83, Zone 17, Meters.  
 Plat orientation, corner and well ties are based upon the grid north meridian.  
 Well location references are based upon the grid north meridian.

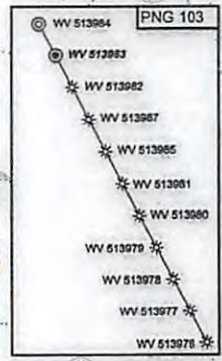
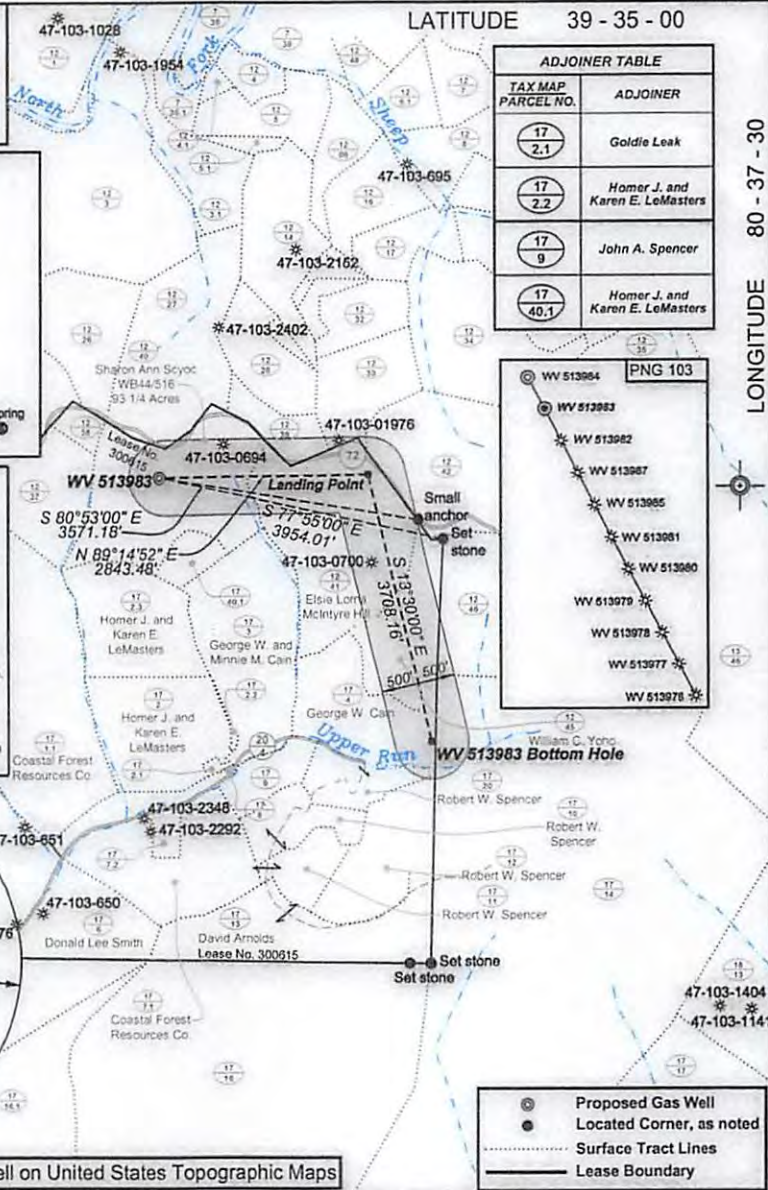
GRID NORTH



(-o-) Denotes Location of Well on United States Topographic Maps

| ADJOINER TABLE     |                                 |
|--------------------|---------------------------------|
| TAX MAP PARCEL NO. | ADJOINER                        |
| 17<br>2.1          | Goldie Leak                     |
| 17<br>2.2          | Homer J. and Karen E. LeMasters |
| 17<br>9            | John A. Spencer                 |
| 17<br>40.1         | Homer J. and Karen E. LeMasters |

LONGITUDE 80 - 37 - 30  
6,545'



- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Lease Boundary



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.

P.S. 2092



FILE NO: 212-34-G-10  
 DRAWING NO: 212-10.PNG 103 H14.dwg  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: August 25 20 14  
 OPERATOR'S WELL NO. WV 513983  
 API WELL NO. 47 - 103 - 03038 H&A  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: 1458' WATERSHED Upper Run QUADRANGLE: Pine Grove  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: Sharon Ann Scyoc ACREAGE: 93 1/4  
 ROYALTY OWNER: Shiben Estates, Inc. LEASE NO: 300615 ACREAGE: 1.104  
 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: Marcellus ESTIMATED DEPTH: 7,450' TVD / 15,100' MD

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray  
 ADDRESS: PO Box 280 / 115 Professional Place ADDRESS: PO Box 280 / 115 Professional Place  
 Bridgeport, WV 26330 Bridgeport, WV 26330