west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Earl Ray Tomblin , Governor
Randy C. Huffman , Cabinet Secretary
www.dep.wv.gov

Thursday, November 03, 2016
WELL WORK PERMIT
Vertical / New Drill

EQT PRODUCTION COMPANY
120 PROFESSIONAL PLACE
BUILDING II
BRIDGEPORT, WV 26330

Re: Permit approval for 518147
47-095-02393-00-00

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: 518147
Farm Name: EDDY, GILBERT F.
U.S. WELL NUMBER: 47-095-02393-00-00
Vertical / New Drill
Date Issued: 11/3/2016

4709502393

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.

3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.

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

5. 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.

6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours

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

8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced, drilling ceased, completion of any other permitted well work and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

4709502393

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Production Company

306686	Tyler	Ellsworth	Porters Falls 7.5'
Operator ID	County	District	Quadrangle

2) Operator's Well Number: 518147 3) Elevation: 1258'

4) Well Type: (a) Oil _____ or Gas X

(b) If Gas: Production X / Underground Storage _____

Deep _____ / Shallow X

5) Proposed Target Formation(s): Geneseo, Marcellus Proposed Target Depth: 6763'
6) Proposed Total Depth: 6987' Feet Formation at Proposed Total Depth: Onondaga
7) Approximate fresh water strata depths: 330', 391',505'
8) Approximate salt water depths: 1305', 1431', 1615', 2046'

9) Approximate coal seam depths: 446'

10) Approximate void depths,(coal, Karst, other): None Reported DMH 9-25-16

11) Does land contain coal seams tributary to active mine? None Reported

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed) JPS 9/29/16
See Attached Document

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13 3/8"	A500	37.0 #/ft	40'	40'	28 Cu. Ft.
Fresh Water	9 5/8"	A500	32.3 #/ft	605'	605'	257 Cu. Ft. CTS. JPS 9/29/16
Coal						
Intermediate	7"	A500	20.2 #/ft	3132'	3132'	607 Cu. Ft.
Production	4.5"	WT-80	11.6 #/ft	6987'	6987'	490 Cu. Ft.
Tubing	2 3/8"	J-55	4.7 #/ft		-30' Above Top Perf.	N/A
Liners						

Packers: Kind: _____
Sizes: _____
Depths Set _____

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of
Environmental Protection

Proposed Well Work and Fracturing Methods *WW-2B Form Attachment*

12) Describe proposed well work and fracturing methods in detail:

- Drill and complete a new vertical well in multiple formations. Drill the vertical to an approximate depth of 6987', not more than 100' into the Onondaga. Run 4.5" Casing and Cement.
- Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.3%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 7700 psi, maximum anticipated treating rates are expected to average approximately 60 bpm. Average approximately 200,000 barrels of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000 pounds of sand per zone.

MUST NOT PRODUCE ONONDAGA. DMH 9-29-16 SPS 9/29/16

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of
Environmental Protection

9502393

WW-2A
(Rev. 6-14)

1). Date: 9/21/2016

2.) Operator's Well Number 518147

3.) API Well No.: State 47- County 095 - Permit 02393

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Gilbert F. Eddy
Address 5761 Gorrells Run Road
Middlebourne, WV 26149
(b) Name Rosella Murner
Address 5495 Gorrells Run Road
Middlebourne, WV 26149
(c) Name
Address

6) Inspector Justin Snyder
Address 200 Florence
Lumberport, WV 26386
Telephone (681) 313-6995

5) (a) Coal Operator
Name
Address

(b) Coal Owner(s) with Declaration
Name Gilbert F. Eddy
Address 5761 Gorrells Run Road
Middlebourne, WV 26149
Name
Address

(c) Coal Lessee with Declaration
Name
Address

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

___ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

OR

X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 18 on the above named parties by:

___ Personal Service (Affidavit attached)
X Certified Mail (Postmarked postal receipt attached)
___ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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 and imprisonment.

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

Well Operator EQT Production Company
By: Victoria J. Roark
Its: Permitting Supervisor
Address: 115 Professional Place
Bridgeport, WV 26330
Telephone: (304) 848-0076
Email: vroark@eqt.com

Subscribed and sworn before me this 21 day of Sept, 2016

Notary Public

My Commission Expires 8-24-22

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of
Environmental Protection

Oil and Gas Privacy Notice

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

4709502393

WW-2A1
(Rev. 1/11)

Operator's Well Number 518147

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Lease #870398			
Gilbert F. Eddy (Original Lessor)	Petroedge Energy, LLC	Min. Pd. 1/8	387/113
Petroedge Energy, LLC	Statoil USA Onshore Properties Inc		406/147
Statoil USA Onshore Properties Inc	EQT Production Company		539/239

Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EQT Production Company
By: Its: Permitting Supervisor

9502393

WW-2B1
(5-12)

Well No. 518147

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name: Fairway Laboratories, Inc.
Sampling Contractor: Fairway Laboratories, Inc.

Well Operator: EQT Production Company
Address: 115 Professional Place
Bridgeport, WV 26330
Telephone: (412) 553-5700

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

SURFACE OWNER ATTACHMENT INDICATES YOU ARE SELECTING ALL 3 WATER SOURCES TO SAMPLE & ANALYZE.

JW JM

RECEIVED
OCT 04 2012
WV Department of
Environmental Protection

9502393

Notice to Surface Owner or Resident *Vertical Shallow Well **#518147** – Tyler County*

The initial mapping review of the area surrounding the proposed vertical shallow well site identified the below listed Surface Owner or Resident that is potentially utilizing a water well or spring for human consumption, domestic animals, or other general use and of which is located within a 2,000' radius of the proposed vertical shallow well site. The following Surface Owner or Resident will be notified of the opportunity to request a water sample and analytical testing should it be necessary.

Surface Owner or Resident Notified:

Owner:	Gilbert F. Eddy
Address:	5761 Gorrells Run Road Middlebourne, WV 26149
Phone:	304-758-4569
Parcel #:	02-16-27
Comments:	Water Well identified near home.

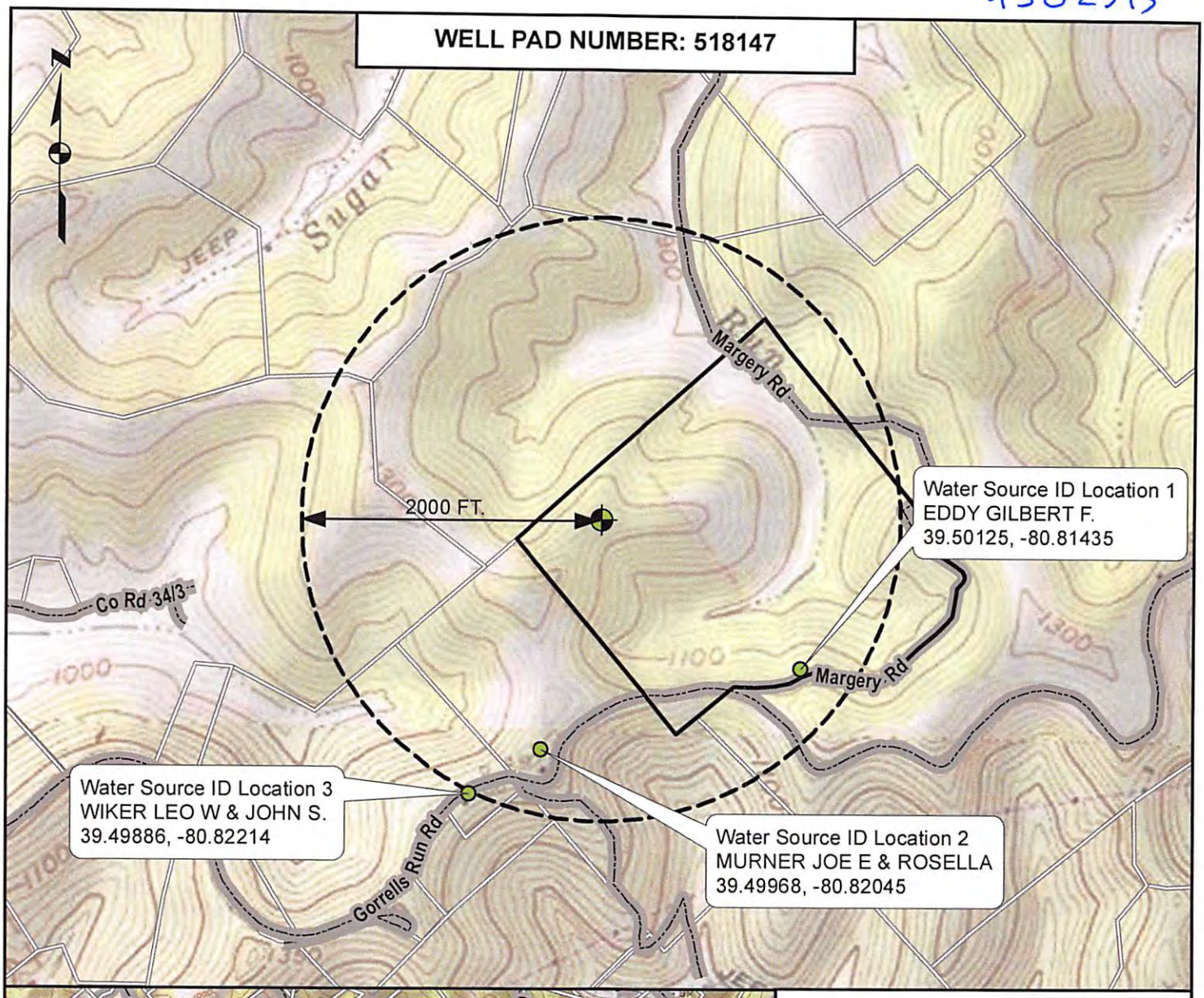
Owner:	Rosella Murner
Address:	5495 Gorrells Run Rd Middlebourne, WV 26149
Phone:	304-758-4245
Parcel #:	02-16-37
Comments:	Water Well identified near home.

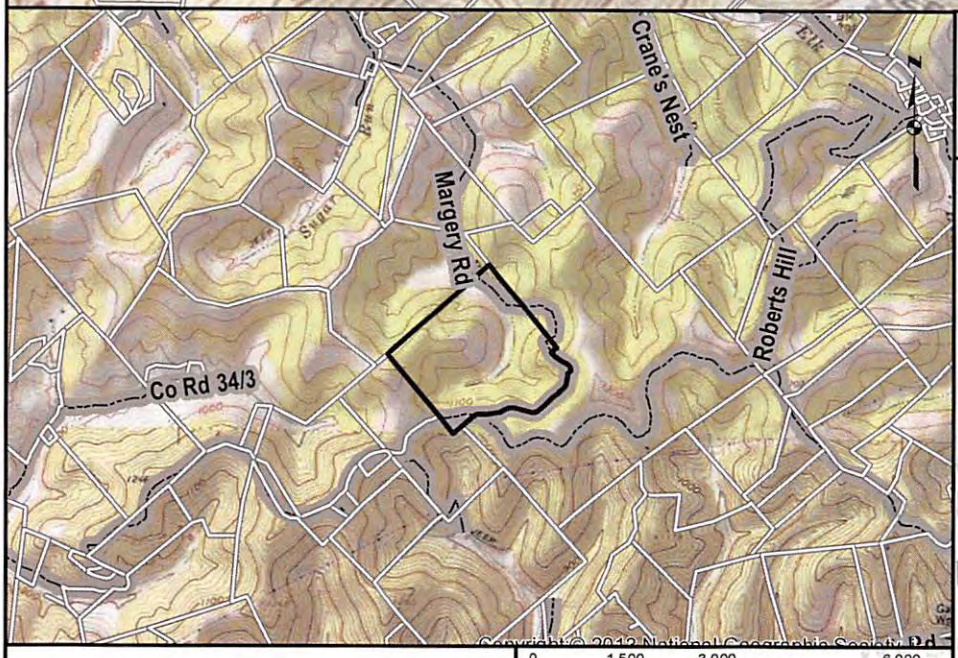
Owner:	Leo W. & John S. Wiker
Address:	231 S. Main St, Suite 205 Greensburg, PA 15601
Phone:	724-837-6712
Parcel #:	02-16-39.1
Comments:	Water Well on parcel is being utilized by neighbors, Chester & Bonnie Hair, parcel #02-16-38.1. The Hairs' have a submersible pump. The Hairs' can be contacted at 304-758-2959 and their address is 5178 Gorrells Run Road, Middlebourne, WV, 26149. The Hairs' requested the well on Wiker be tested.

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of
Environmental Protection

9502393

WELL PAD NUMBER: 518147





1 inch = 1,000 feet

0 500 1,000 2,000 Feet

0 1,500 3,000 6,000 Feet

TOPO SECTION OF PORTERS FALLS 7.5 USGS TOPO QUADRANGLE

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE WV D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of Environmental Protection

DJH 9-29-16 JPS 9/29/16

EQT JERICHO LAND RESOURCES

9502393

WW-9
(5/16)

API Number 47 - 095 -
Operator's Well No. 518147

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company OP Code 306686

Watershed (HUC 10) Outlet Middle Island Creek Quadrangle Porters Falls 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: N/A

Will a synthetic liner be used in the pit? Yes ☐ No ☑ If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application (if selected provide a completed form WW-9-GPP)
■ Underground Injection (UIC Permit Number 0014, 8462, 4037)
■ Reuse (at API Number Various)
■ Off Site Disposal (Supply form WW-9 for disposal location)
_____ Other (Explain _____

Will closed loop systembe used? If so, describe: Yes, the closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. See Attached

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud

Additives to be used in drilling medium? See Attached

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See Attached List

DMH 9-29-16

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any 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.

JPS 9/29/16

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 Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature _____

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of Environmental Protection

Subscribed and sworn before me this 21 day of Sept, 20 16

_____ Notary Public

My commission expires 8-24-22

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

9502393

Form WW-9

Operator's Well No. 518147

Proposed Revegetation Treatment: Acres Disturbed No Additional Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10 - 20 -10

Fertilizer amount 1/3 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

Attach:
Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: Oil & Gas Inspector Date: 9-29-16

Field Reviewed? (_____) Yes (_____) No

9502393

Drilling Medium & Additives to be Used *WW-9 Form Attachment*

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

- Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole will be drilled with either air, water based mud, or oil based mud.

Additives to be used in drilling medium?

- Air – biodegradable oil lubricant, detergent, defoaming, water.
- Water based mud – barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates.
- Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

DMH
9-29-16

JPS
9/29/16

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of
Environmental Protection

9502393

EQT Production Water Plan - Offsite Disposals for Marcellus Wells *WW-9 Form Attachment*

CWS TRUCKING INC.
P.O. Box 391
Williamstown, WV 26187
740-516-3586
Noble County / Noble Township
Permit # 3390

LAD LIQUID ASSETS DISPOSAL INC.
226 Rankin Road
Washington, PA 15301
724-350-2760
724-222-6080
724-229-7034 fax
Ohio County / Wheeling
Permit # USEPA WV 0014

TRI COUNTY WASTE WATER MANAGEMENT, INC.
1487 Toms Run Road
Holbrook, PA 15341
724-627-7178 Plant
724-499-5647 Office
Greene County / Waynesburg
Permit # TC-1009

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

BROAD STREET ENERGY LLC
37 West Broad Street, Suite 1100
Columbus, Ohio 43215
740-516-5381
Washington County / Belpre TWP.
Permit # 8462

TRIAD ENERGY
P.O. Box 430
Reno, OH 45773
740-516-6021 Well
740-374-2940 Reno Office Jennifer
Nobel County / Jackson Township
Permit # 4037

KING EXCAVATING CO.
Advanced Waste Services
101 River Park Drive
New Castle, Pa. 16101
Facility Permit# PAR000029132

Waste Management - Northwestern Landfill
512 E. Dry Road
Parkersburg, WV 26104
304-428-0602
Permit #SWF-1025 WV-0109400
Approval #100833WV

95 02393

WW-9- GPP
Rev. 5/16

API Number 47 - 095 -
Operator's Well No. 518147

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

Operator Name: EQT Production Company
Watershed (HUC 10): Outlet Middle Island Creek Quad: Porters Falls 7.5'
Farm Name:

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

N/A

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

N/A

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

N/A

4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

9502393

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

N/A

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

N/A

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

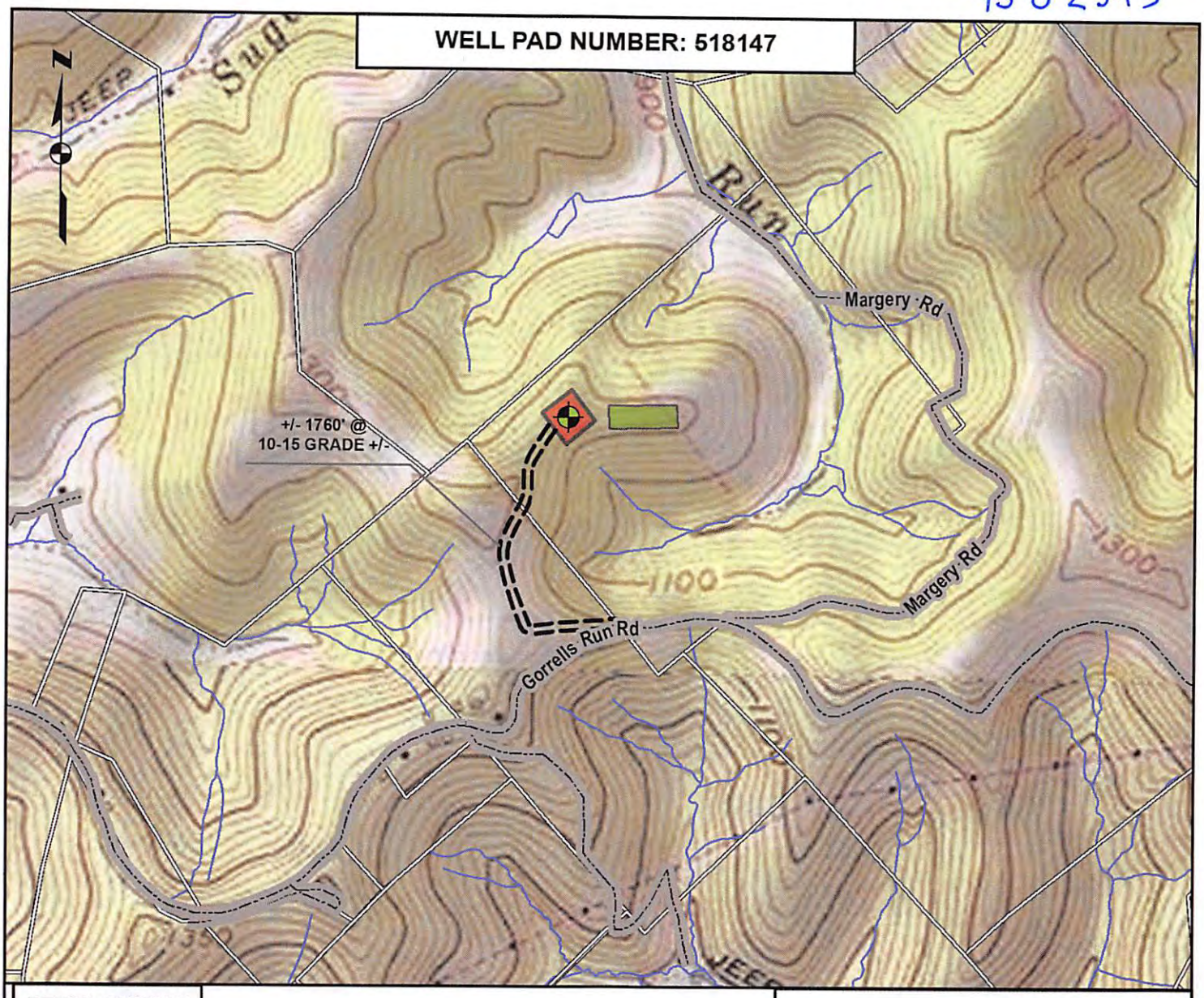
N/A

Signature:

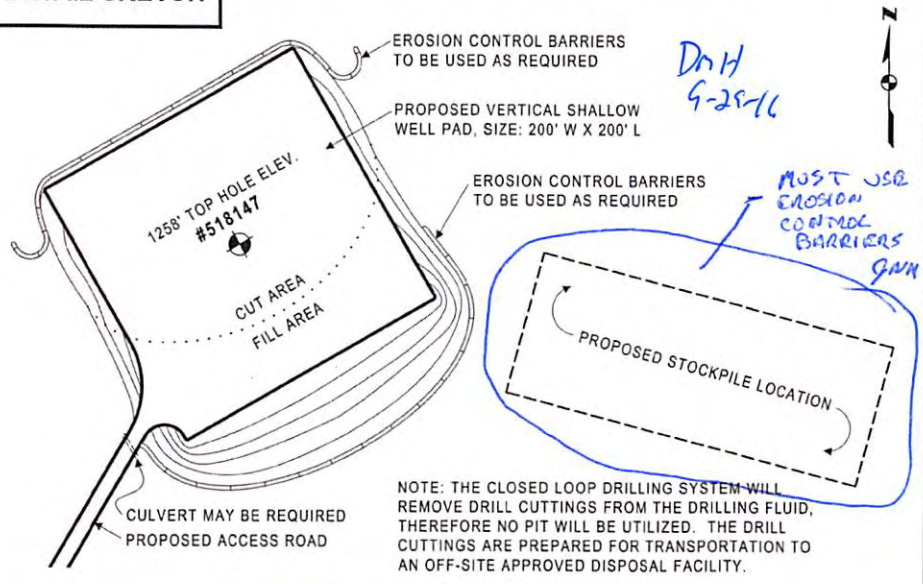
Date: 9-21-16

9502393

WELL PAD NUMBER: 518147



DETAIL SKETCH



DMH 9-29-16

MUST USE EROSION CONTROL BARRIERS DMH

NOTE: THE CLOSED LOOP DRILLING SYSTEM WILL REMOVE DRILL CUTTINGS FROM THE DRILLING FLUID, THEREFORE NO PIT WILL BE UTILIZED. THE DRILL CUTTINGS ARE PREPARED FOR TRANSPORTATION TO AN OFF-SITE APPROVED DISPOSAL FACILITY.

NOT TO SCALE

TOPO SECTION OF PORTERS FALLS 7.5 USGS TOPO QUADRANGLE

EQT JERICHO LAND RESOURCES

1 inch = 833 feet

0 250 500 1,000 1,500 Feet

JRP 9/29/16

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE WV D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

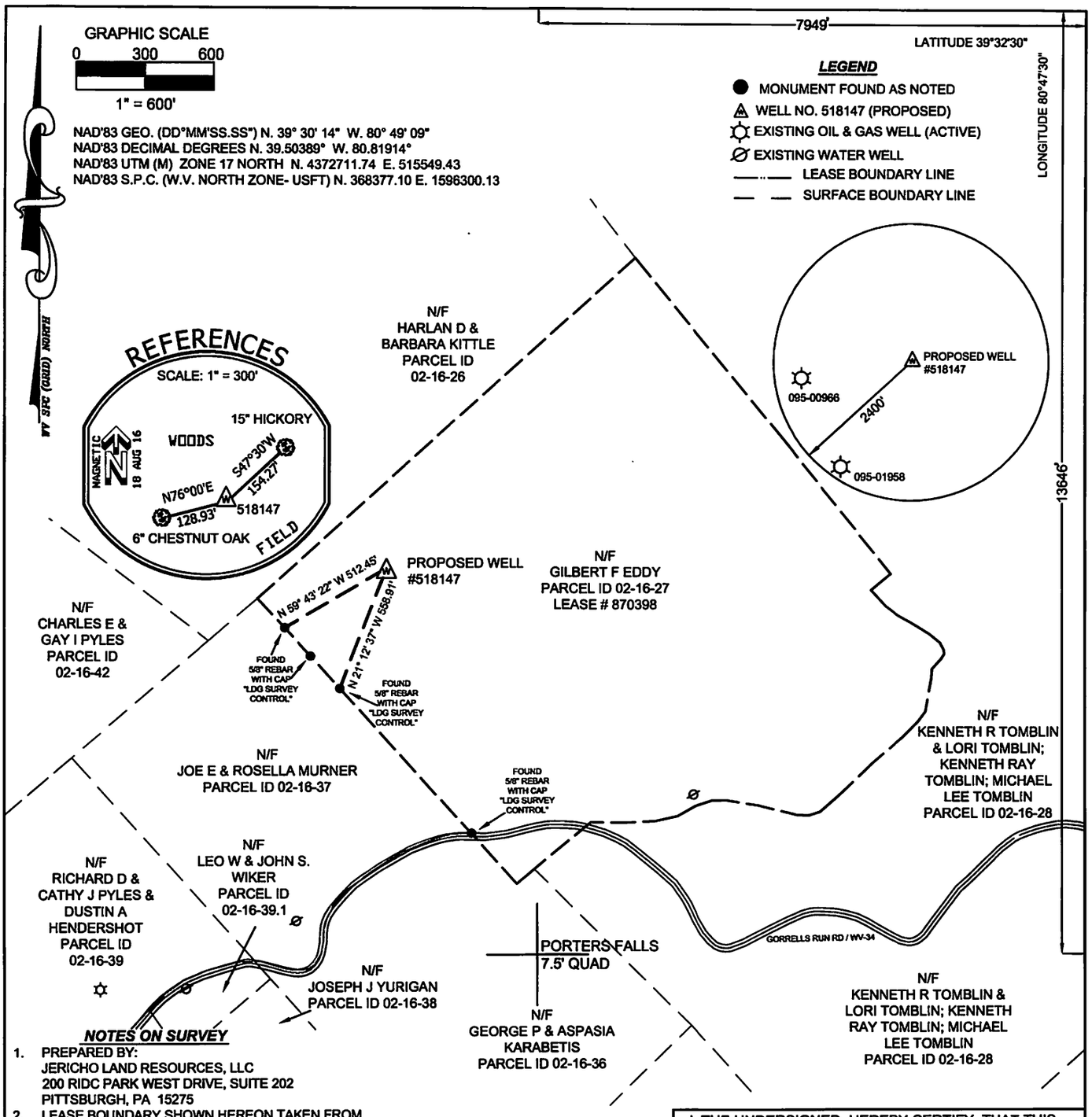
EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

RECEIVED
Office of Oil and Gas
OCT 04 2016
WV Department of
Environmental Protection



NOTES ON SURVEY

1. PREPARED BY:
   JERICHO LAND RESOURCES, LLC
   200 RIDC PARK WEST DRIVE, SUITE 202
   PITTSBURGH, PA 15275
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM LEASE BOOK 387 PAGE 113.
3. THIS IS NOT A BOUNDARY SURVEY. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF TYLER COUNTY IN AUGUST 2016

OPERATORS WELL NO: 518147
SCALE: 1" = 600'
MINIMUM DEGREE OF ACCURACY: SUB-METER
PROVEN SOURCE OF ELEVATION: CORS NETWORK & WV VRS

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

API WELL NO. 47 (STATE) 095 (COUNTY) 02393 (PERMIT)

CALVIN J. MARTIN LICENSED NO. 2150 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

Signed: Calvin J. Martin

P.L.S.: 2150 *DATE:* 9/21/2016

WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
601 57TH ST. SE
CHARLESTON, WV 25304

WELL TYPE: ☐ OIL ☐ WASTE DISPOSAL ☒ PRODUCTION ☐ DEEP
☒ GAS ☐ LIQUID INJECTION ☐ STORAGE ☒ SHALLOW

WATERSHED: OUTLET MIDDLE ISLAND CREEK *ELEVATION:* 1258'

DISTRICT: ELLSWORTH *COUNTY:* TYLER *QUADRANGLE:* PORTERS FALLS 7.5'

SURFACE OWNER: GILBERT F EDDY *ACREAGE:* 92.25+/-

OIL & GAS ROYALTY OWNER: GILBERT F EDDY *ACREAGE:* 92.25+/-

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒
PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐
CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY):_____

TARGET FORMATION: GENESEO, MARCELLUS *ESTIMATED DEPTH:* TVD 6987'

WELL OPERATOR: EQT PRODUCTION COMPANY
ADDRESS: 115 PROFESSIONAL PLACE
BRIDGEPORT, WV 26330

DESIGNATED AGENT: REX C. RAY
ADDRESS: 115 PROFESSIONAL PLACE
BRIDGEPORT, WV 26330