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

May 05, 2016

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-10303151, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: 513845
Farm Name: COASTAL FOREST RESOURCES
API Well Number: 47-10303151
Permit Type: Horizontal 6A Well
Date Issued: 05/05/2016

Promoting a healthy environment.

API Number: 103-03151

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.

2. 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 § 22-6A-5a (12), 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 one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.

4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.

5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations,* 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.

6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

9. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, 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.

west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

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

April 19, 2016

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-103-03151

COMPANY: EQT Production Company

FARM: Coastal Forest Res WV 513845

COUNTY: Wetzel DISTRICT: Grant QUAD: Big Run

The deep well review of the application for the above company is **APPROVED TO TRENTON FOR POINT PLEASANT COMPLETION .**

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? none
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; none
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines

Cindy Raines
ERP Administrator

WW-6B
(04/15)

API NO. 47- 103 - 0351
OPERATOR WELL NO. 513845
Well Pad Name: BIG177

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

1) Well Operator: EQT Production Company | 306686 | Wetzel | Grant | Big Run
Operator ID | County | District | Quadrangle

2) Operator's Well Number: 513845 Well Pad Name: BIG177

3) Farm Name/Surface Owner: Coastal Forest Resources Co. dba Coastal Timberlands Co. Public Road Access: Rt 19

4) Elevation, current ground: 809.0 Elevation, proposed post-construction: 811.0

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow _____ Deep X
Horizontal X

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant, 12295', 102', 10243 PSI

8) Proposed Total Vertical Depth: 12,546'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 17,831'

11) Proposed Horizontal Leg Length: 5,200'

12) Approximate Fresh Water Strata Depths: 170, 280, 480, 630'

13) Method to Determine Fresh Water Depths: Offset Well Data

14) Approximate Saltwater Depths: 1135, 1450'

15) Approximate Coal Seam Depths: 100, 153, 431, 541'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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103-03151

CASING AND TUBING PROGRAM

18)

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: for Drilling	INTERVALS: Left in Well	CEMENT: Fill- up (Cu.Ft.)
Conductor	30	New	A-500	118.76	80	80	173 C.T.S.
Fresh Water	24	New	X-52	125.5	320	320	619 C.T.S.
Coal	18 5/8	New	J-55	87.5	765	765	853 C.T.S.
Intermediate 1	13 3/8	New	J-55	68	2,728	2,728	2,375 C.T.S.
Intermediate 2	9 5/8	New	HC EIP-110	47	11,270	11,270 *	~~500' above top producing zone~~
Production	5 1/2	New	HC EIP-110	23	17,831	17,831	1000' above 9 5/8" Csg Shoe
Tubing	2 7/8	New	P-110	6.5			May not be run, if run will be set 40' above top perf. or at 80° inclination
Liners							

AS 5/3/16

CTS per email dated 5/2/16 LA

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30	36	0.375	1,050	840	Class A	1.18
Fresh Water	24	28	0.5	1,896	1,517	Class A	1.19
Coal	18 5/8	22	0.435	2,250	1,800	Class A	1.19
Intermediate 1	13 3/8	17 1/2	0.48	3,450	2,760	Class H	1.07
Intermediate 2	9 5/8	12 3/8	0.472	11,000	8,800	Class H	1.66 / 1.22
Production	5 1/2	8 1/2	0.415	18,863	15,000	Class G/H	1.57 / 1.71
Tubing	2 7/8	NA	0.434	14,530			
Liners							

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Office of Oil & Gas
FEB 26 2016

WW-6B
(10/14)

API NO. 47- 103 - 03151
OPERATOR WELL NO. 513845
Well Pad Name: BIG177

19) Describe proposed well work, including the drilling and plugging back of any pilot hole: ok per log from offset

Drill and complete a new horizontal well in the Point Pleasant Formation. Drill the vertical to an approximate depth of 12,546' (200' below top of Trenton). Plug back vertical portion of wellbore with a solid cement plug to approximately 11388'. Kick off and drill curve. Drill the lateral in the Point Pleasant. Cement casing.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

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, gelling agent, gel breaker, 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 15000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. 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 stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 6.9

22) Area to be disturbed for well pad only, less access road (acres): 6.5

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500'.
- Coal: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Intermediate 1: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Intermediate 2: Bow spring centralizers– One cent at the shoe and one spaced every 500' to previous casing string shoe.
- Production: One solid body cent spaced every joint from production casing shoe to KOP

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives
Surface (Class A Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries, .25% Flake Loss Circulation Material (LCM)
Coal (Class A Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. 25% Flake Loss Circulation Material (LCM)
Intermediate 1 (Class H Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. 0.25% flake. Loss Circulation Material (LCM) .6% Super FL-300 (fluid loss/lengthens thickening time)
Intermediate (Class H Cement): 0-10% Calcium Chloride. Used to speed the setting of cement slurries. .2% CJ210 (lengthen thickening time) .2% CJ402 (dispersant makes cement easier to mix) .5% CJ500 (Fluid loss) .2% CJ710 (Anti-foam)
Production (Class G/H Cement): 0-20% Dispersant (makes cement easier to mix). 0-1% Fluid loss 0-1% Expansive Additive. 0-1% Retarder (Lengthens thickening time) 0-1% Suspending Agent 0-1% Retarder (Legthens thickening time)

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25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Coal: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate 1: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate 2: Circulate hole clean by pumping 1-3 bottoms up or until shakers are clean. Pump marker sweep with nut plug to determine actual hole washout. Check volume of cuttings coming across shakers every 15 minutes.
Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

103-0315/

EQT

Where energy meets innovation.™

Site Specific Safety Plan

EQT BIG177 Pad

Jacksonburg

Wetzel County, WV

For Wells:

513845

Date Prepared: February 9, 2016

EQT Production

Permitting Supervisor
Title

2-23-16
Date

WV Oil and Gas Inspector

Oil + Gas Inspector
Title

3-1-16
Date

103-03151

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
dep.wv.gov

March 18, 2014

Nabors Completion & Production Services Company
1380 Route 286 Hwy E #121
Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

- Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

Sincerely,

James Peterson by GCS

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

Received
Office of Oil & Gas
FEB 26 2016

103-03151

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
dep.wv.gov

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

IN THE MATTER OF A VARIANCE FROM	)	**ORDER NO. 2014 - 17**
REGULATION 35 CSR § 4-11.4/11.5/14.1	)	
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE	)	
THE OPERATIONAL	)	
REGULATIONS OF CEMENTING OIL	)	
AND GAS WELLS	)	

REPORT OF THE OFFICE

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

FINDINGS OF FACT

1.) Nabors Completion & Production Services Co. proposes the following cement blend:

- 2% Calcium Chloride (Accelerator)
- 0.25 % Super Flake (Lost Circulation)
- 94% Type "1" Cement
- 5.20 % Water

2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

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Office of Oil & Gas
FEB 26 2016

103-0315/

CONCLUSIONS OF LAW

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

ORDER

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be **8** hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after **8** hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief
Office of Oil and Gas

Received
Office of Oil & Gas
FEB 26 2016

4710303151

WW-9
(2/15)

API Number 47 - 103 - _____
Operator's Well No. 513845

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) Willey Fork of North Fork Fishing Creek Quadrangle 254- Big Run

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 ☑ If so, what ml.? n/a

Proposed Disposal Method For Treated Pit Wastes:

- ____ Land Application
- ■ 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 _____

DMH
3-1-16

Will closed loop system be 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

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.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature _____

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor

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Office of Oil and Gas
MAR 09 2016
WV Department of Environmental Protection

Subscribed and sworn before me this 24 day of Feb, 2016

Pamela Sykes 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

WW-9 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, curve, and lateral sections 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.

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3-1-16

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Environmental Protection

4710303151

Form WW-9

Operator's Well No. 513845

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed no additional Prevegetation pH 5.2

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

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:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [signature]

Comments:

Title: Oil + Gas Inspector Date: 3-1-16

Field Reviewed? (✓) Yes ( ) No

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EQT Production Water plan
Offsite disposals for Marcellus wells

4710303151

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

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

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

DMH
3-1-16

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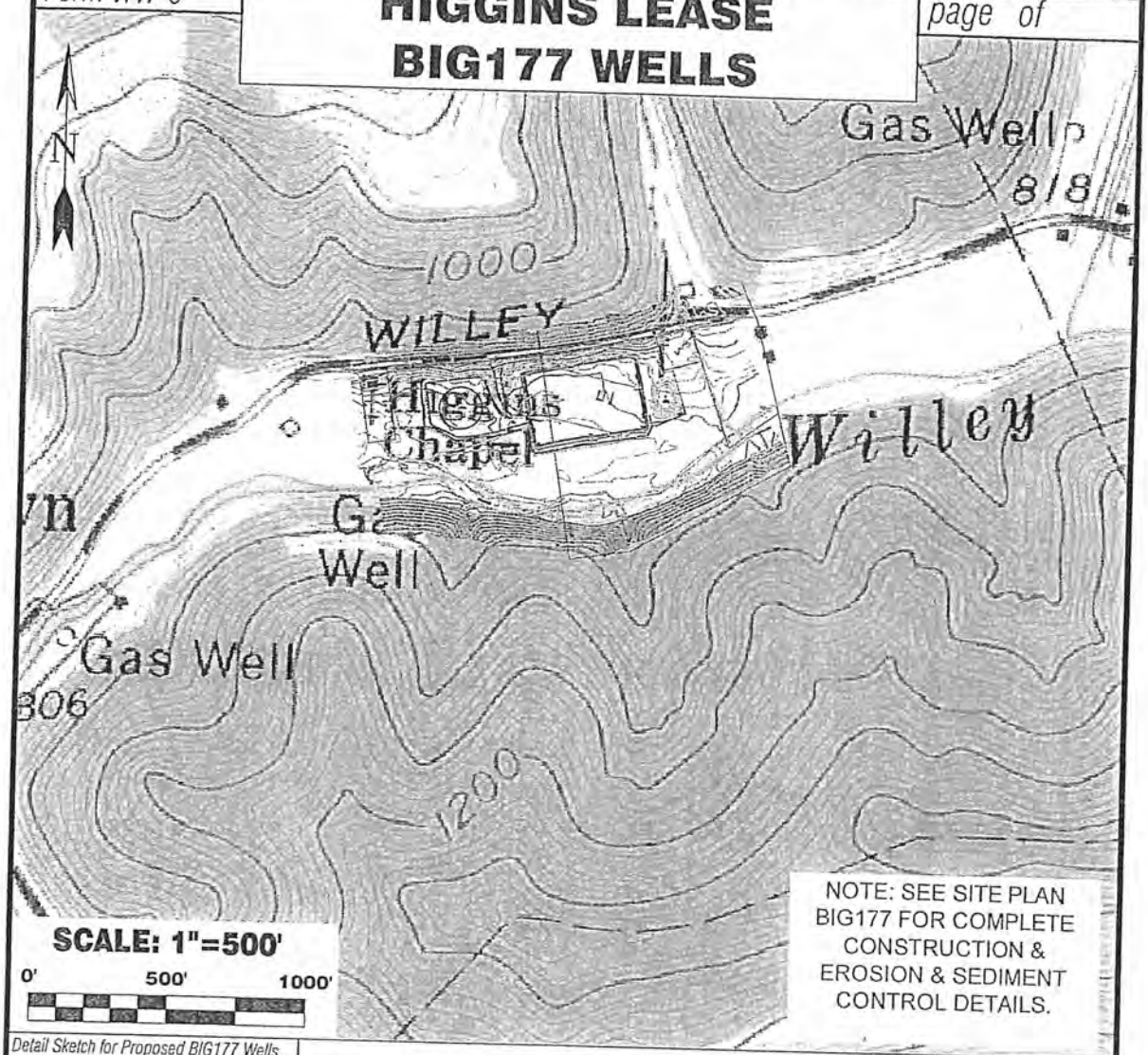
Environmental Protection

4710303151

Form WW-9

HIGGINS LEASE
BIG177 WELLS

page of

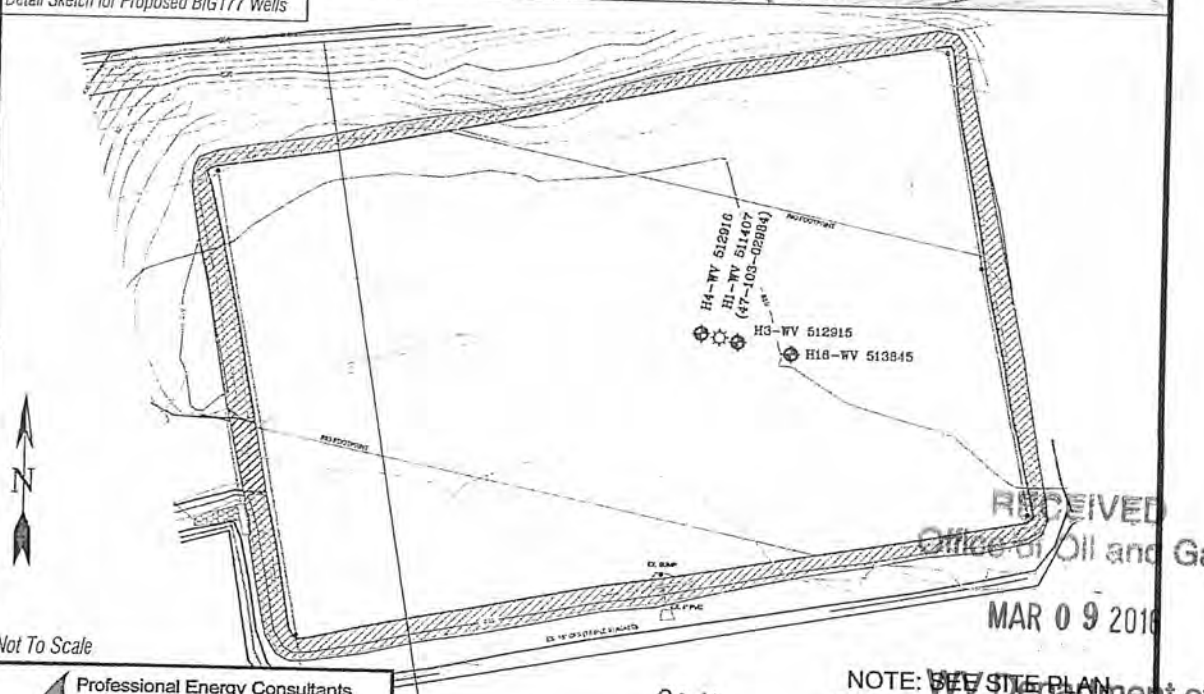


NOTE: SEE SITE PLAN BIG177 FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.

SCALE: 1"=500'

0' 500' 1000'

Detail Sketch for Proposed BIG177 Wells



Not To Scale

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Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.
(304) 462-5634
WWW.SLSSURVEYS.COM

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	6806	09-09-15	6806BIG177REC.dwg

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3-1-16

NOTE: SEE SITE PLAN BIG177 FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.

4710303151

Where energy meets innovation.™

Site Specific Safety Plan

EQT BIG177 Pad

Jacksonburg

Wetzel County, WV

For Wells:

513845

Date Prepared: February 9, 2016

EQT Production

Permitting Supervisor
Title

2-23-16
Date

WV Oil and Gas Inspector

Oil + Gas Inspector
Title

3-1-16
Date

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MAR 09 2016
WV Department of
Environmental Protection

103-03151

WW-6A1
(5/13)

Operator's Well No. 513845

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
see attached				

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

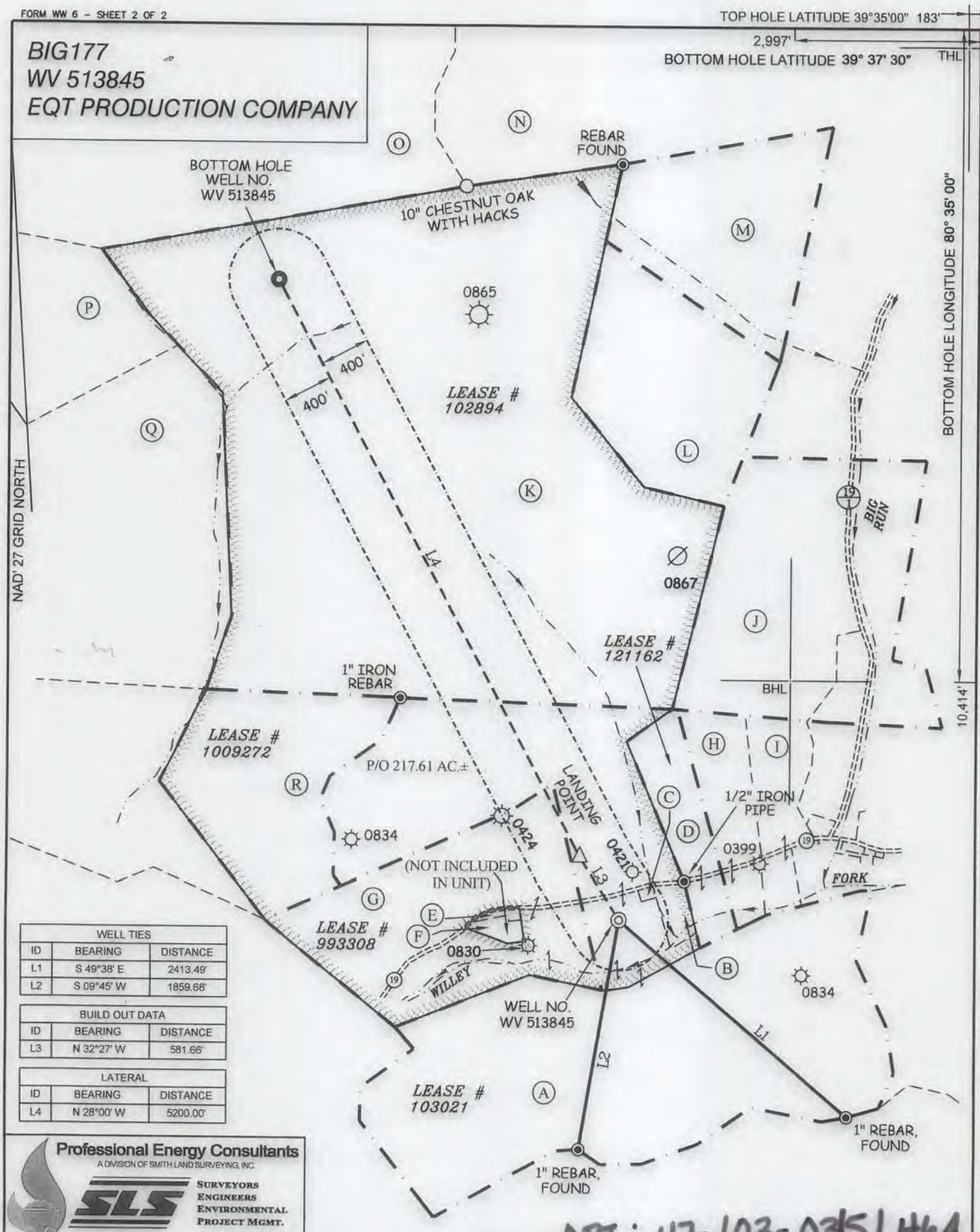
Received
Office of Oil & Gas
FEB 26 2016

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: Victoria J. Roark
Its: Permitting Supervisor

FORM WW 6 - SHEET 2 OF 2

BIG177
WV 513845
EQT PRODUCTION COMPANY



WELL TIES		
ID	BEARING	DISTANCE
L1	S 49°38' E	2413.49'
L2	S 09°45' W	1859.68'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 32°27' W	581.66'

LATERAL		
ID	BEARING	DISTANCE
L4	N 28°00' W	5200.00'

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS — SURVEYORS, ENGINEERS, ENVIRONMENTAL, PROJECT MGMT.
(304) 462-5634 WWW.SLSSURVEYS.COM

API: 47-103-03151H6A

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT)	N. 396,130.043	E. 1,694,484.912
NAD'27 GEO.	LAT-(N) 39.582547	LONG-(W) 80.583981
NAD'83 UTM (M)	N. 4,381,517.607	E. 535,742.652
LANDING POINT		
NAD'27 S.P.C.(FT)	N. 396,620.86	E. 1,694,172.79
NAD'27 GEO.	LAT-(N) 39.583884	LONG-(W) 80.585109
NAD'83 UTM (M)	N. 4,381,665.55	E. 535,645.07
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 401,212.19	E. 1,691,731.54
NAD'27 GEO.	LAT-(N) 39.596408	LONG-(W) 80.593969
NAD'83 UTM (M)	N. 4,383,051.92	E. 534,878.01

EARL N. THOMPSON — LICENSED — No. 2288 — STATE OF WEST VIRGINIA — PROFESSIONAL SURVEYOR
3/15/16

SCALE 1" = 1000'

DATE MAY 06 20 15

REVISED 08/25/15, 03/04/16 & 03/15/16

OPERATORS WELL NO. WV 513845

API WELL NO. 47 — 103 — 03151H6A
STATE COUNTY PERMIT

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

LEGEND

LEASE LINE
UNIT BOUNDARY
SURFACE LINE
WELL LATERAL
OFFSET LINE
TIE LINE
CREEK
ROAD
COUNTY ROUTE
PROPOSED WELL
EXISTING WELL
PERMITTED WELL
PLUGGED WELL
GRANT DISTRICT TAX MAP—PARCEL G-00-00

COUNTY NAME
PERMIT

WELL OPERATOR EQT PRODUCTION COMPANY
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
BRIDGEPORT, WV 26330

DESIGNATED AGENT EQT PRODUCTION COMPANY
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
BRIDGEPORT, WV 26330

BIG177
WV 513845
EQT PRODUCTION COMPANY

TOP HOLE LATITUDE 39°35'00" 183'

2,997'

BOTTOM HOLE LATITUDE 39° 37' 30"

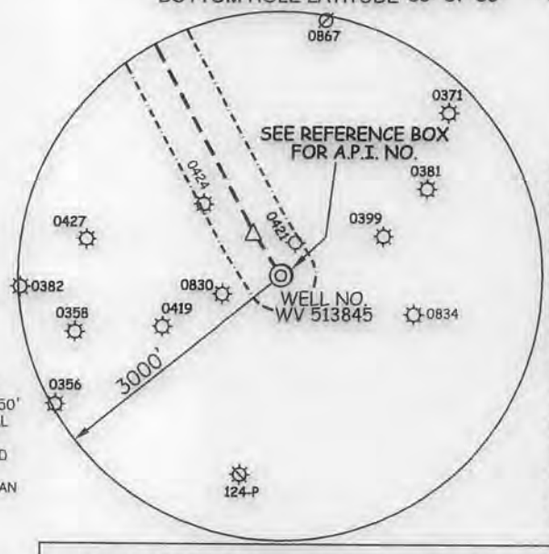
THL

286'

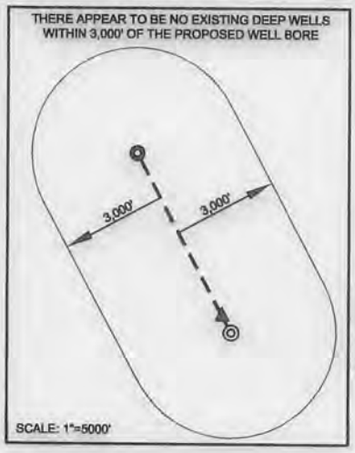
TOP HOLE LONGITUDE 80°35'00"

BOTTOM HOLE LONGITUDE 80° 35' 00"

10,414'



THERE APPEAR TO BE NO EXISTING DEEP WELLS WITHIN 3,000' OF THE PROPOSED WELL BORE



NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ.FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. SEE REFERENCE BOX FOR DISTANCE TO AN EXISTING DWELLING.

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT)	N. 396,130.043	E. 1,694,484.912
NAD'27 GEO.	LAT-(N) 39.582547	LONG-(W) 80.583981
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LANDING POINT		
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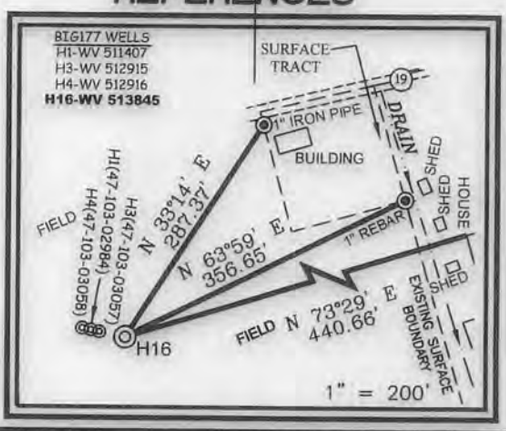
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 401,212.19	E. 1,691,731.54
NAD'27 GEO.	LAT-(N) 39.596408	LONG-(W) 80.593969
NAD'83 UTM (M)	N. 4,383,051.92	E. 534,878.01

BHL

A	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	217.61 ACRES±	TM G-13-06
B	IKEY J. & TINA M. WILLEY	2.15 ACRES±	TM G-08-65
C	EQT GATHERING, LLC.	0.418 ACRES±	TM G-8-66
D	JOHN D. PARKS	15.50 ACRES±	TM G-8-35
E	HIGGINS CHAPEL CHURCH	0.99 ACRES±	TM G-8-58
F	MARY S. EASTHAM ET AL	1.45 ACRES±	TM G-8-64
G	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	55.06 ACRES±	TM G-13-6.1
H	JAMES L. & KAREN DULANEY	14.10 ACRES±	TM G-8-36
I	JAMES L. & KAREN DULANEY	14.10 ACRES±	TM G-8-37
J	DALE DULANEY ET AL	70.81 ACRES±	TM G-8-23
K	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	337 ACRES±	TM G-8-18
L	PHILLIP BRENT SHREVE ET AL	46.45 ACRES±	TM G-8-19
M	GARLAND MINOR	48.10 ACRES±	TM G-8-10
N	DANNY STOCKSLAGER ET AL	170 ACRES±	TM G-8-01
O	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	178 ACRES±	TM G-7-03
P	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	120 ACRES±	TM G-7-10
Q	LORRAINE S. WILDMAN ET AL	67 ACRES±	TM G-8-17
R	HALLIE M. HARDBARGER	48.25 ACRES±	TM G-8-34

REFERENCES



ROYALTY OWNERS		
COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. ET AL	57.5 AC.±	LEASE NO. 993308
EQT PRODUCTION COMPANY	300 AC.±	LEASE NO. 102894

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC
SLS SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.
(304) 462-5634 WWW.SLSSURVEYS.COM

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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 2288 Earl N. Thompson

EARL N. THOMPSON LICENSED No. 2288 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE MAY 06 , 20 15

REVISED 08/25/15, 03/04/16 & 03/15/16

OPERATORS WELL NO. WV 513845

API WELL NO. 47 — 103 — 03151 HGA
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 6806P513845ALT-R3.dwg

SCALE 1" = 1000'

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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

WELL TYPE: OIL ____ GAS X LIQUID INJECTION ____ WASTE DISPOSAL ____ IF "GAS" PRODUCTION X STORAGE ____ DEEP X SHALLOW ____

LOCATION : ELEVATION (GROUND) 809' (PROPOSED) 811' WATERSHED WILLEY FORK OF NORTH FORK FISHING CREEK

DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'

SURFACE OWNER COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. ACREAGE 27± OF 217±

ROYALTY OWNER HIGGINS FAMILY TRUST ACREAGE 242.5±

PROPOSED WORK : LEASE NO. 103021

DRILL X CONVERT ____ DRILL DEEPER ____ REDRILL ____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ____ PERFORATE NEW FORMATION ____ PLUG AND ABANDON ____ CLEAN OUT AND REPLUG ____ OTHER ____

PHYSICAL CHANGE IN WELL (SPECIFY) ____ TARGET FORMATION POINT PLEASANT

ESTIMATED DEPTH 12,346'

COUNTY NAME

PERMIT

WELL OPERATOR EQT PRODUCTION COMPANY **DESIGNATED AGENT** EQT PRODUCTION COMPANY

ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 **ADDRESS** 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

SLS

Well Designation: 513845

	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Lease #103021	**Higgins Family Trust (current royalty owner)**		min pd 1/8th	
	James V. Higgins (original lessor)	The Philadelphia Company of West Va.		DB 60/414
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		DB 98/146
	Pittsburgh & West Virgina Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, L.P.	EQT Production Company		DB 131A/81
Lease #993308	Coastal Forest Resources Co.; d/b/a Coastal Timberlands Co., etal (current royalty & original Lessor)	EQT Production Company	min pd 1/8th	OG 147A/664
Lease #102894	**EQT Production Company (current royalty owner)**		in fee	
	J. B. Hicks (original lessor)	The Philadelphia Company of West Va.		OG 47/441
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		OG 22A/352
	Pittsburgh & West Virgina Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, L.P.	EQT Production Company		DB 131A/81

Received
Office of Oil & Gas
FEB 26 2016

WW-6A1 Attachment

103-03151

EQT

103-03151

February 24, 2016

Mr. James Martin
West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: BIG177, well [redacted] 103-03151
Grant District, Wetzel County

Dear Mr. Martin,

EQT Production Company is submitting an application for a new well work permit for the above well number. Upon information and belief, Operator's lease and/ or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

Sincerely,

Vicki Roark
Permitting Supervisor-WV

Received
Office of Oil & Gas
FEB 25 2016

103-03151

WW-6AC
(1/12)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: FEB 25 2016

API No. 47- 103 -
Operator's Well No. 513845
Well Pad Name: BIG177

Notice has been given:
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	47- West Virginia	UTM NAD 83	Easting:	535,742.65
County:	103-Wetzel		Northing:	4,381,517.61
District:	4- Grant	Public Road Access:		Rt 19
Quadrangle:	284- Big Run	Generally used farm name:		Coastal Forest Resources Co. dba Coastal Timberlands Co
Watershed:	Wiley Fork of North Fork Fishing Creek			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

		OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY	or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY	or ☒ NO PLAT SURVEY WAS CONDUCTED	☐ RECEIVED
☒ 3. NOTICE OF INTENT TO DRILL	or ☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	☐ RECEIVED/ NOT REQUIRED
	☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
☒ 4. NOTICE OF PLANNED OPERATION		☐ RECEIVED
☒ 5. PUBLIC NOTICE		☐ RECEIVED
☒ 6. NOTICE OF APPLICATION		☐ RECEIVED

Required Attachments:
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by certified mail, return receipt, the return receipt card or other postal receipt for certified mailing.

RECEIVED
Office of Oil and Gas

FEB 29 2016

WV Department of
Environmental Protection

WW-6AC
(1/12)

103-03151

Certification of Notice is hereby given:

THEREFORE, I _____, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification 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.

Well Operator:	EQT Production Company	Address:	115 Professional Place
By:	Victoria J. Roark		Bridgeport, WV 26330
Its:	Permitting Supervisor	Facsimile:	304-848-0041
Telephone:	304-848-0076	Email:	vroark@eqt.com

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

Subscribed and sworn before me this 24 day of Feb 2016.

_____ Notary Public

My Commission Expires 8·24·22

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Received
Office of Oil & Gas
FEB 26 2016

103-03151

WV-6A
(9-13)

API NO. 47- 103 - 03151
OPERATOR WELL NO. 513545
Well Pad Name: BIG177

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 2/25/16 Date Permit Application Filed: FEB 25, 2016

Notice of:

☑ PERMIT FOR ANY WELL WORK ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

☐ PERSONAL SERVICE ☐ REGISTERED MAIL ☑ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to:

☑ SURFACE OWNER(s)
Name: see attached
Address:

Name:
Address:

☑ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: see attached
Address:

Name:
Address:

☑ SURFACE OWNER(s) (Impoundments or Pits)
Name: see attached
Address:

☑ COAL OWNER OR LESSEE
Name: see attached
Address:

☐ COAL OPERATOR
Name:
Address:

☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: see attached
Address:

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name:
Address:

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
FEB 29 2016
WV Department of Environmental Protection

103-03151

Surface Owner

Coastal Forest Resources Co.
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Surface Owner (Road and/or Other Disturbance)

Coastal Forest Resources Co.
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Surface Owner (AST's/Impoundments/Pits)

Coastal Forest Resources Co.
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Received
Office of Oil & Gas
FEB 26 2016

103-03151

Coal Owner or Lessee

CNX Land Resources, Inc.
Attn: Ryan Arp
1000 Consol Energy Dr.
Canonsburg, PA 15317

WPP, LLC
C/O George Angus
5260 Irwin Road
Huntington, WV 25705

Irrevocable Intervivos Trust of Billy Higgins
Frances J & William P. Higgins, co-trustees
531 Franklin Terrace
Washington, PA 15301

Deanna Merle Weber
633 Carothers Road
Weirton, WV 26062

Coastal Forest Resources Co
fka Coastal Lumber Company
C/O Edward G. Kraynok
P.O. Box 709
Buckhannon, WV 26201

Robin Barr
4060 S.W. County Road 232
Bell, FL 32619

Murray American Energy, Inc
1 Bridge Street
Monongah WV 26554

Murray American Energy, Inc
C/O Murray Energy Corporation
46226 National Road
St Clairsville, OH 43950

Doris E. Hamilton
55 Parker Street
Wheeling, WV 26003-7404

RECEIVED
Office of Oil and Gas

FEB 29 2016

WV Department of
Environmental Protection

103-03151

Additional Coal Owners: CBM

CNX Gas Company, LLC
Attn Analyst Engineering & Operations Support Dept. Coal
Attn:Casey Saunders
CNX Center
1000 Consol Energy Drive
Cannonsburg, PA 15317

Received
Office of Oil & Gas
FEB 26 2016

103-03151

Water Well Owners

Ikey Willey
12359 Willey Fork Road
Pine Grove, WV 26419

John D. Parks
12301 Willey Fork Rd
Pine Grove, WV 26419-8366

Mary Eastham
12653 Willey Fork Rd.
Pine Grove, WV 26419-8387

Higgins Church of Christ
C/O Virgil Willey
10460 N Fork Rd
Pine Grove, WV 26419

Received
Office of Oil & Gas
FEB 26 2016

WW-6A
(8-13)

API NO. 47- 103 - 0315l
OPERATOR WELL NO. 513845
Well Pad Name: BIG177

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:
Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions
Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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FEB 26 2016

API NO. 47- 103 - 03151
OPERATOR WELL NO. 513845
Well Pad Name: BIG177

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

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(8-13)

API NO. 47- 103 - 63151
OPERATOR WELL NO. 513845
Well Pad Name: BIG177

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

(1) The proposed well work will constitute a hazard to the safety of persons;
(2) The plan for soil erosion and sediment control is not adequate or effective;
(3) Damage would occur to publicly owned lands or resources; or
(4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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FEB 26 2016

WW-6A
(8-13)

API NO. 47- 103 - 03151
OPERATOR WELL NO. 513845
Well Pad Name: BIG177

Notice is hereby given by:

Well Operator: EQT Production Company
Telephone: 304-848-0076
Email: vroark@eqt.com

Address: 115 Professional Place
Bridgrport, WV 26330
Facsimile: 304-848-0041

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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

Subscribed and sworn before me this 24 day of Feb., 2016.

Notary Public

My Commission Expires 8-24-22

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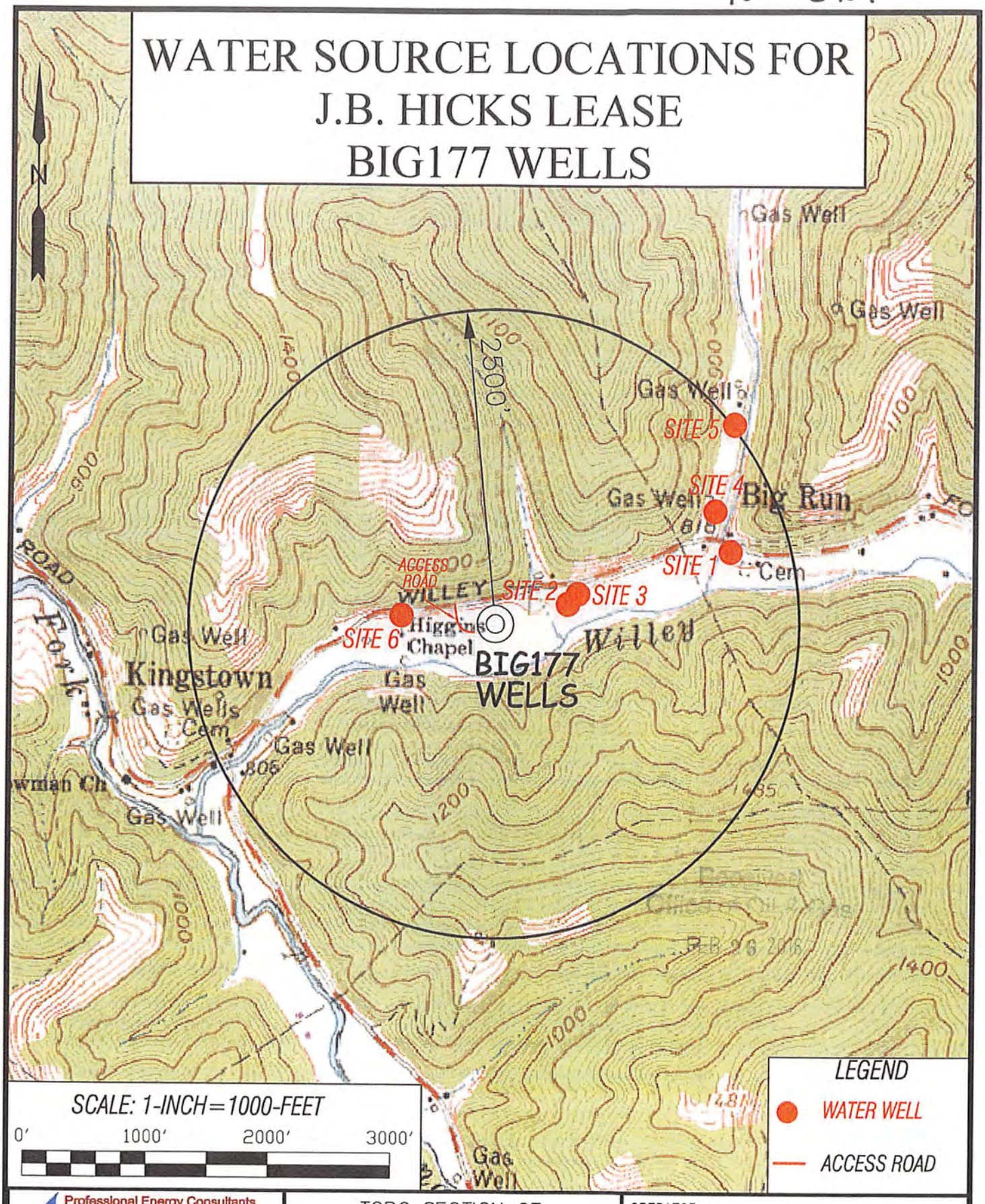
FEB 26 2016

103-03151

WATER SOURCE LOCATIONS FOR J.B. HICKS LEASE BIG177 WELLS



Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC
SLS SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.
(304) 462-5634 WWW.SLSSURVEYS.COM

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	6806	02/19/16	6806WSBIG177.dwg

TOPO SECTION OF:
BIG RUN, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
GRANT	WETZEL	13-06

OPERATOR:
EQT PRODUCTION COMPANY
115 PROFESIONAL PLACE
P.O. BOX 280
BRIDGEPORT, WV 26330

103-03151

WW-6A4
(1/12)

Operator Well No. 513845

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 02/11/2016 **Date Permit Application Filed:** FEB 25 2016

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

☐ HAND DELIVERY ☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided,* That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however,* That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: see attached
Address:

Name:
Address:

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: WV
County: 103-Wetzel
District: 4- Grant
Quadrangle: 254- Big Run
Watershed: Wiley Fork of North Fork Fishing Creek

UTM NAD 83 Easting: 535,742.65
Northing: 4,381,517.61
Public Road Access: Rt 19
Generally used farm name: Coastal Forest Resources dba Coastal Timberlands Co.

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: EQT Production Company
Address: 115 Professional Place
Bridgeport, WV 26385
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Authorized Representative: Victoria Roark
Address: 115 Professional Place
Bridgeport, WV 26385
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our statutory 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 or your personal information please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Office of Oil and Gas
FEB 29 2016
WV Department of
Environmental Protection

103-0315/

Surface Owner

Coastal Forest Resources Co. /
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Surface Owner (Road and/or Other Disturbance)

Coastal Forest Resources Co. /
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Surface Owner (AST's/Impoundments/Pits)

Coastal Forest Resources Co. /
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

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FEB 26 2016

103-03151

WW-6A5
(1/12)

Operator Well No. [illegible]

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: FEB 25 2016 **Date Permit Application Filed:** FEB 25 2016

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: see attached
Address:

Name:
Address:

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: 47- West Virginia
County: 103-Wetzel
District: 4- Grant
Quadrangle: 254- Big Run
Watershed: Willey Fork of North Fork Fishing Creek

UTM NAD 83 Easting: 535,742.65
Northing: 4,381,517.61
Public Road Access: Rt 19
Generally used farm name: Coastal Forest Resources Co. dba Coastal Timberlands Co

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: EQT Production Company
Telephone: 304-848-0078
Email: vroark@eqt.com

Address: 115 Professional Place
Bridgeport, WV 26330
Facsimile: 304-848-0041

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Office of Oil and Gas

FEB 29 2016

WV Department of
Environmental Protection

103-03151

Surface Owner

Coastal Forest Resources Co.
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Surface Owner (Road and/or Other Disturbance)

Coastal Forest Resources Co.
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

Surface Owner (AST's/Impoundments/Pits)

Coastal Forest Resources Co.
DBA Coastal Timberlands Co.
P.O. Box 709
Buckhannon, WV 26201

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FEB 26 2016

WW-6RW
(1-12)

EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 26330-0280

API NO. 47- 103 - 03151
OPERATOR WELL NO. H16 - 513845
Well Pad Name: BIG 177

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL LOCATION RESTRICTION WAIVER

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements.

WAIVER

I, _____, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	West Virginia	UTM NAD 83 Easting:	
County:	Wetzel	UTM NAD 83 Northing:	
District:	Grant	Public Road Access:	CR 19 / Willey Fork Road
Quadrangle:	Big Run 7.5"	Generally used farm name:	
Watershed:	Willey Fork		

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

WELL SITE RESTRICTIONS BEING WAIVED
*Please check all that apply

- ☐ EXISTING WATER WELLS
- ☐ DEVELOPED SPRINGS
- ☒ DWELLINGS
- ☐ AGRICULTURAL BUILDINGS

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FEB 26 2016

FOR EXECUTION BY A NATURAL PERSON
Signature: Ikey Joe Willey
Print Name: Ikey Joe Willey
Date: 7-31-2013

FOR EXECUTION BY A CORPORATION, ETC.
Company: _____
By: _____
Its: _____
Signature: _____
Date: _____

Carol S Haught
WETZEL County 02:32:05 PM
Instrument No 154556
Date Recorded 12/03/2013
Document Type MS
Pages Recorded 1
Book-Page 105-681
Recording Fee $5.00
Additional $6.00

Well Operator: EQT Production Company
By: John W. Damato
Its: Attorney-In-Fact

Signature: _____
Telephone: _____

OFFICIAL SEAL
NOTARY SEAL
COMMISSIONER FOR WEST VIRGINIA
Bryson J. Karp
Weston, WV
My Commission Expires January 1, 2021

Subscribed and sworn before me this 31 day of July 2013

BJK Notary Public

My Commission Expires Jan 1 2021

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6RW
(1-12)

EQT PRODUCTION COMPANY
PO BOX 280
BRIDGEPORT, WV 26330-0280

API NO. 47- 103 - 03151
OPERATOR WELL NO. H16 - 513845
Well Pad Name: BIG 177

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

WELL LOCATION RESTRICTION WAIVER

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements.

WAIVER

I, _____, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: West Virginia
County: Wetzel
District: Grant
Quadrangle: Big Run 7.5"
Watershed: Willey Fork

UTM NAD 83 Easting: _____
UTM NAD 83 Northing: _____
Public Road Access: CR 19 / Willey Fork Road
Generally used farm name: _____

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

WELL SITE RESTRICTIONS BEING WAIVED
*Please check all that apply

☐ EXISTING WATER WELLS
☐ DEVELOPED SPRINGS
☒ DWELLINGS
☐ AGRICULTURAL BUILDINGS

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FEB 26 2016

FOR EXECUTION BY A NATURAL PERSON
Signature: _____
Print Name: Tina M. Willey
Date: 7-31-2013

FOR EXECUTION BY A CORPORATION, ETC.
Company: _____
By: _____
Its: _____
Signature: _____
Date: _____

Document Type MS
Pages Recorded 1
Book-Page 105-482
Recording Fee $5.00
Additional $6.00

Carol S Haught
WETZEL County 02:35:07 PM
Instrument No 154557
Date Recorded 12/03/2013

Well Operator: EQT Production Company
By: John W. Damato
Its: Attorney-In-Fact

Signature: _____
Telephone: _____

OFFICIAL SEAL
NOTARY SEAL
COMMISSIONER FOR WEST VIRGINIA
Bryson J. Karp
Weston, WV
My Commission Expires January 1, 2021

Subscribed and sworn before me this 31 day of July, 2013

_____ Notary Public

My Commission Expires Jan 1 2021

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone 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 or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

103-03151

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

Reissued February 23, 2016

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the BIG177 Well Site, Wetzel County

513845 BIG177H16

Dear Mr. Martin,

This well site will be accessed from existing Permit # 06-2013-0292 issued to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 19 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton

Gary K. Clayton
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: Nick Bumgardner
EQT Production Company
CH, OM, D-6
File

Received
Office of Oil & Gas
FEB 26 2016

BIG 177 H1-H6, H15, H16 SITE PLAN
EQT PRODUCTION COMPANY

(PROPOSED WELL NO. WV 511407, WV 511408, WV 512915, WV 512916, WV 512917, WV 512918, WV 513844, WV 513845)

SITUATE ON THE WATERS OF WILLEY FORK OF NORTH FORK FISHING CREEK IN GRANT DISTRICT, WETZEL COUNTY, WEST VIRGINIA.

APPROVED
WVDEP OOG
11/12/2014

API# 10302984

PROJECT INFORMATION

PROJECT NAME: BIG 177 H1-H6, H15, H16

TAX PARCEL:
GRANT DISTRICT
MAP 13-6, 13-61

SURFACE OWNER:
COASTAL FOREST RESOURCES COMPANY D/B/A
COASTAL TIMBERLANDS COMPANY
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA: 27 ± ACRES OF 217 ± ACRES
AND 55 ± ACRES

OIL AND GAS ROYALTY OWNER:
HIGGINS FAMILY TRUST (LEASE No. 103021)
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA: 242.5 ± ACRES

SITE LOCATION:
THE BIG 177 SITE IS LOCATED IN THE BOTTOM NORTH OF WILLEY FORK APPROXIMATELY 2,300 FT EAST OF THE CO. RT. 19 AND CO. RT. 15 INTERSECTION.

LOCATION COORDINATES

BIG 177 H1-H6, H15, H16 WELL PAD ENTRANCE
LATITUDE: 39.58303 LONGITUDE: -80.58527 (NAD 83)

BIG 177 H1-H6, H15, H16 WELL PAD
LATITUDE: 39.58263 LONGITUDE: -80.58412 (NAD 83)

BIG 177 H1-H6, H15, H16 TANK PAD
LATITUDE: 39.58252 LONGITUDE: -80.58570 (NAD 83)

SITE DISTURBANCE COMPUTATIONS

PAD AREA = 6.5 ± ACRES*
ACCESS ROAD = 0.4 ± ACRES
TOTAL SITE DISTURBANCE = 6.9 ± ACRES
*INCLUDES AREA OF THE WELL PAD, TANK PAD, & STOCKPILES

ENTRANCE PERMIT

EQT PRODUCTION COMPANY WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MW-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTIFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET #1312820264. IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT IS LOCATED IN FEMA FLOOD ZONE "A", PER THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 54103C0025C, DATED SEPT. 25, 2009. A FLOODPLAIN ANALYSIS FOR THE PROPOSED DISTURBANCE HAS BEEN PROVIDED BY NAVITUS ENGINEERING, DATED AUGUST 1, 2013 SHOWING THE IMPACTS OF THE PROPOSED IMPROVEMENTS. PLEASE REFER TO THE ANALYSIS FOR ADDITIONAL INFORMATION.

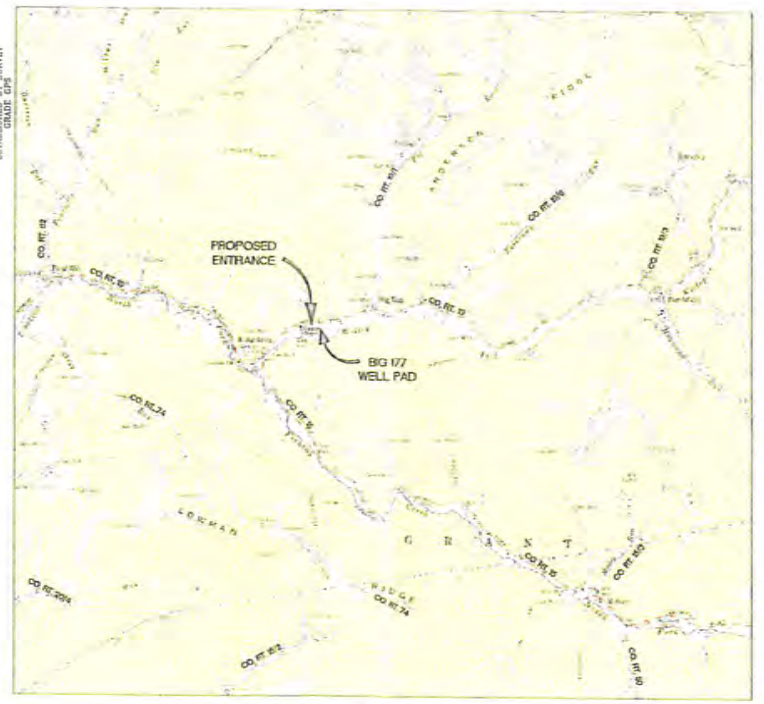
ENVIRONMENTAL NOTES

A WETLAND DELINEATION WAS PERFORMED ON SEPTEMBER 22, 2011 AND DECEMBER 14, 2012 AND DECEMBER 17, 2012 BY POTESTA & ASSOCIATES, INC. TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE FEBRUARY 4, 2013 REPORT PROJECT # 0101-11-147-17701 WAS PREPARED BY POTESTA & ASSOCIATES, INC. SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE REPORT DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WVDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

GENERAL DESCRIPTION

THE WELL PAD AND TANK PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

GRID NORTH AND ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY SURVEY GRADE GPS



BIG RUN QUAD
2000 0 2000
SCALE: 1" = 2000'

Electronic plans maybe viewed at: Q:\OIL GAS\SAY FILES\REVIEWS\EQT

LIST OF DRAWINGS

1 - COVER SHEET
2 - NOTES AND DETAIL SKETCH
3 - WELL PAD AND ACCESS ROAD DETAILS AND VOLUMES
4 - WELL PAD SECTION AND ROAD PROFILE AND SECTIONS
5 - WELL PAD RECLAMATION PLAN
6 - CONSTRUCTION DETAILS
7 - CONSTRUCTION DETAILS
8 - CONSTRUCTION DETAILS

LEGEND

EX. INDEX CONTOUR	PROP. INDEX CONTOUR
EX. INTERMEDIATE CONTOUR	PROP. INTERMEDIATE CONTOUR
EX. BOUNDARY LINE	PROP. GRADING LIMITS
EX. RIGHT-OF-WAY LINE	PROP. LIMITS OF DISTURBANCE
EX. ROAD EDGE OF GRAVEL/DIRT	PROP. WELL PAD
EX. ROAD EDGE OF PAVEMENT	PROP. WELL HEAD
EX. ROAD CENTERLINE	PROP. 4" PVC DRAIN PIPE
EX. DITCHLINE	PROP. SUMP DRAIN
EX. CULVERT	PROP. CONTAINMENT BERM
EX. GUARDRAIL	PROP. PIT/IMPOUNDMENT CL
EX. FENCELINE	PROP. PERIMETER SAFETY FENCE
EX. GATE	PROP. ACCESS GATE WITH EMERGENCY LIFELINE
EX. OVERHEAD UTILITY	
EX. OVERHEAD UTILITY R/W	
EX. POWER POLE	
EX. GUY WIRE	
EX. TELEPHONE LINE	
EX. GASLINE	PROP. ROCK CONSTRUCTION ENTRANCE
EX. GASLINE R/W	
EX. WATERLINE	
EX. WATER WELL	
EX. GAS WELL	
EX. TREELINE	PROP. ROAD EDGE OF GRAVEL
EX. REFERENCE TREE	PROP. ROAD CENTERLINE
EX. DELINEATED STREAM	PROP. V-DITCH W/ CHECK DAMS
EX. DELINEATED WETLAND/POND	PROP. DITCH RELIEF CULVERT (DRC)
EX. BUILDING	PROP. RIP-RAP OUTLET PROTECTION
EX. BRIDGE	PROP. GUARDRAIL
EX. TOP OF BANK	PROP. ROCK LEVEL SPREADER
EX. 100 YEAR FEMA FLOODPLAIN	PROP. EARTHEN DIVERSION BERM
EX. 100 YEAR FLOODPLAIN	PROP. ORANGE SAFETY FENCE
100' WETLAND/STREAM BUFFER	PROP. SUPER SILT FENCE
FLOOD PROTECTION SETBACK	PROP. REINFORCED SILT FENCE
PROP. 100 YEAR FLOODPLAIN	PROP. COMPOST SOCK DIVERSION
	PROP. GROUNDWATER DEWATERING TRENCH
	PROP. GROUNDWATER DEWATERING PIPE
	SECTION LINE "A" 0+00 "A" 0+00
	MATCHLINE
	X-SECTION GRID INDEX
	X-SECTION GRID INTERMEDIATE
	X-SECTION PROPOSED GRADE
	X-SECTION EXISTING GRADE
	X-SECTION WATER SURFACE
	SPOT ELEVATION 1000.2
	CENTER OF PAD

OPERATOR
EQT PRODUCTION COMPANY
OPERATOR ID: 306686
115 PROFESSIONAL PLACE
P.O. BOX 280
BRIDGEPORT, WV 26330
PHONE: (304) 348-3870

SURVEYOR/ENGINEER
SMITH LAND SURVEYING, INC.
12 VANHORN DRIVE
P.O. BOX 150
GLENVILLE, WV 26351
PHONE: (304) 462-5634

DmH
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WWW.SLSSURVEYS.COM (304) 462-5634

KIRP R. HALL
REGISTERED PROFESSIONAL ENGINEER
15176
STATE OF WEST VIRGINIA

THIS DOCUMENT WAS REVISED BY: SMITH LAND SURVEYING, INC.
FOR: EQT PRODUCTION COMPANY

COVER SHEET
BIG 177
GRANT DISTRICT
WETZEL COUNTY, WV

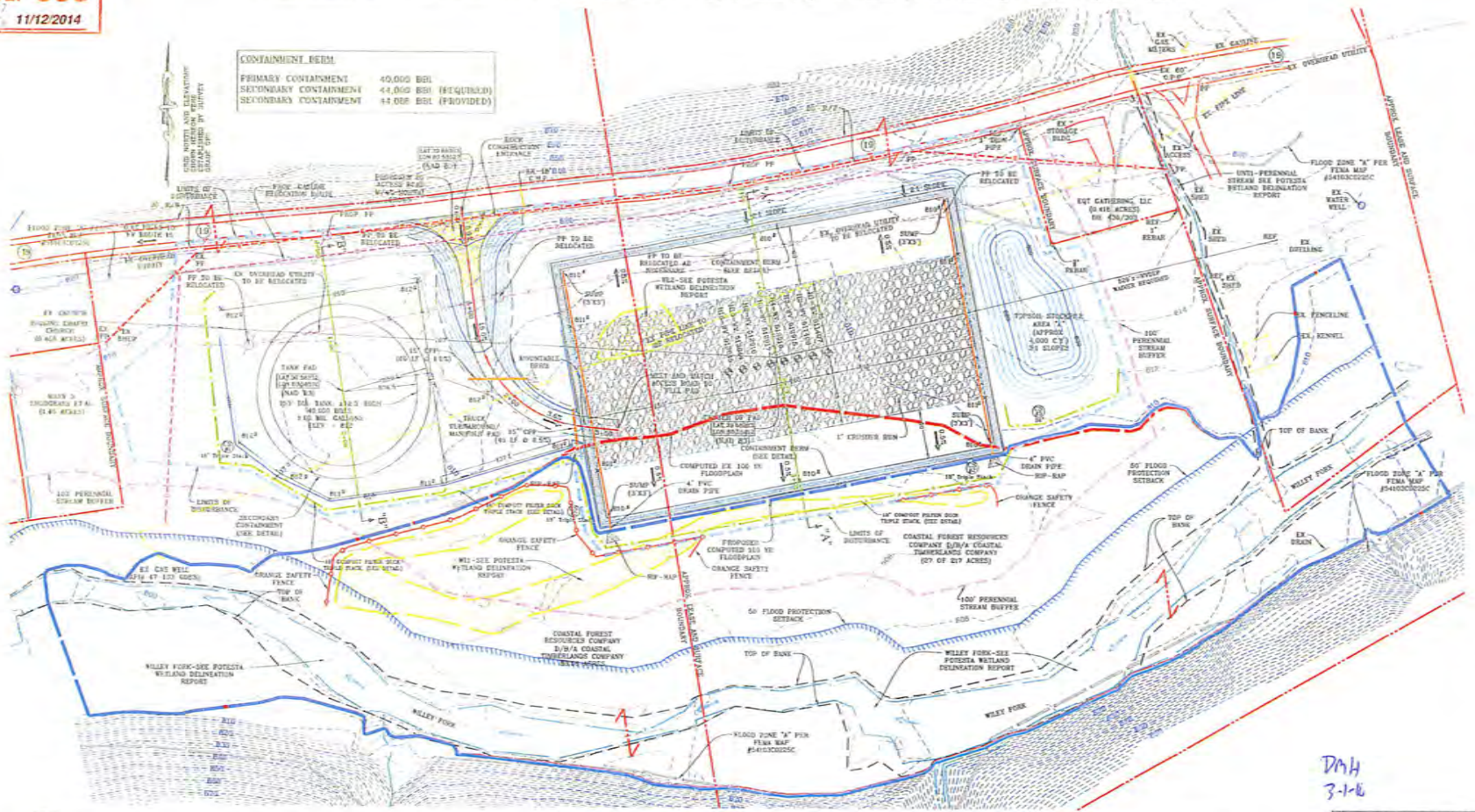
DATE: 05/09/2013
SCALE: 1" = 2000'
DESIGNED BY: CSK
FILE NO. 6606
SHEET 1 OF 8
REV.: 11/10/14

4710303151

APPROVED
WVDEP OOG
11/12/2014

WELL PAD & ACCESS ROAD DETAILS

PROPOSED WELL NO. WV 511407, WV 511408, WV 512915, WV 512916, WV 512917, WV 512918, WV 513844, WV 513845



NOTE:

1. ALL PROPOSED DRAINAGE CULVERTS AND DRAIN PIPES SHALL HAVE ADEQUATE OUTLET PROTECTION (RIP-RAP) AS SHOWN ON THESE PLANS
2. ALL FILL AREAS SHALL BE "KEYED IN" AND COMPACTED IN 12" LIFTS (9" RECOMMENDED) WITH A VIBRATING SHEEPSFOOT ROLLER TO 95% COMPACTION PER STANDARD PROCTER
3. TOPSOIL SHALL BE STRIPPED FROM ALL STOCKPILE AREAS PRIOR TO CONSTRUCTING STOCKPILES. AFTER STOCKPILES ARE CONSTRUCTED TOPSOIL IS TO BE REAPPLIED AT A DEPTH OF 6". SLOPES SHALL BE TRACKED BY RUNNING TRACKED MACHINERY UP AND DOWN THE SLOPE, LEAVING TREAD MARKS PARALLEL TO THE CONTOUR
4. ALL EARTHWORK VOLUMES WERE CALCULATED USING A CUT SWELL FACTOR OF 1.0 AND A FILL SHRINK FACTOR OF 1.0.
5. THERE WILL BE NO DISCHARGE FROM THE SUMPS DURING DRILLING OR COMPLETION

GENERAL NOTES AND ADDITIONAL DESIGN CONCERNS:

1. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON FIELD LOCATED MAPPING PROVIDED BY SLS, INC.
2. THE WETLAND AND STREAM DELINEATION SHOWN HEREON WAS PROVIDED BY SLS, INC. AND POTESTA.
3. THERE IS ONE OCCUPIED DWELLINGS WITHIN 625 FEET OF THE CENTER OF THE PROPOSED PAD. WVDEP WAIVER IS REQUIRED.
4. THERE ARE NO APPARENT WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE CENTER OF THE PROPOSED PAD.
5. THE PROPOSED SITE IS LOCATED WITHIN FEMA FLOOD ZONE "X" AND "A" PER FEMA FLOOD MAP #54103C0225C. THE PROPOSED WELL PAD IS LOCATED IN FEMA ZONE "A". A FLOODPLAIN STUDY SHALL BE COMPLETED AND A FLOODPLAIN PERMIT SHALL BE OBTAINED FROM THE COUNTY FLOODPLAIN MANAGER.
6. ALL WETLAND AND STREAM IMPACTS SHALL BE PERMITTED THROUGH THE ARMY CORPS OF ENGINEERS.
7. THE ACCESS ROAD HAS BEEN DESIGNED TO ACCOMMODATE A WB-67 TRUCK.
8. THE CONTRACTOR AND OPERATOR SHALL MAINTAIN A MINIMUM OF 300' OF SIGHT DISTANCE. TREES AND BRUSH SHALL BE TRIMMED AND REMOVED AS NECESSARY FOR THE DURATION OF THIS SITE.

Topsoil Stockpiles	
Name	CY
A	4000.0
Totals	4000.0

STREAM / WETLAND IMPACT	
PEM Wetland Impact (Square Feet)	
WL1 (Well Pad)	3,222
WL2 (Well Pad)	3,232
Total Area (Sq. Ft.)	6,454
Total Area (Acres)	0.14

BIG 177 PAD QUANTITIES						
Description	Cut (CY)	Fill (CY)	Spoil (CY)	Borrow (CY)	Max. Slope (%)	Length of Slope (FT)
Access Road-A	1.5	4040.3	0.0	4039.0	15.0	75.0
Well Pad	6980.0	7357.5	0.0	5677.5	n/a	n/a
Well Pad Containment Berm	0.0	378.0	0.0	378.0	n/a	n/a
Tank Pad-A	289.0	3125.9	0.0	2836.9	n/a	n/a
Truck Turnaround Pad-A	0.0	917.1	0.0	917.1	n/a	n/a
Stripped Topsoil (6")	3638.0	0.0	3638.0	0.0	n/a	n/a
Material Stockpiles	0.0	4000.0	0.0	4000.0	n/a	n/a
Totals	5908.3	19818.8	3638.0	17848.5	n/a	n/a
	Total Spoil (CY) =		-14210.5			

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THIS DOCUMENT WAS REVISED BY: SMITH LAND SURVEYING, INC.
FOR: EQT PRODUCTION COMPANY

WELL PAD AND ACCESS ROAD DETAILS AND VOLUMES
BIG 177
GRANT DISTRICT
WETZEL COUNTY, WV

DATE: 05/09/2013
SCALE: 1" = 50'
DESIGNED BY: CSK
FILE NO: 6806
SHEET 3 OF 8
REV.: 11/10/14

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WV Department of
Environmental Protection

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BIG-177 SITE AS-BUILT
EQT PRODUCTION COMPANY

BIG 177 WELLS: H1 WV 511407 (API NO. 47-103-02984), H3 WV 512915, H4 WV 512916, & H16 WV 513845.

SITUATE ON THE WATERS OF WILLEY FORK OF NORTH FORK FISHING CREEK IN GRANT DISTRICT, WETZEL COUNTY, WEST VIRGINIA.

PROJECT INFORMATION

PROJECT NAME: BIG-177 SITE AS BUILT

TAX PARCEL
GRANT DISTRICT
MAP 13-6 13-6.1

SURFACE OWNER

COASTAL FOREST RESOURCES COMPANY D/B/A
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA 274 ACRES OR 2174 ACRES AND 554 ACRES

ROYALTY OWNER

BIGGINS FAMILY TRUST (LEASE NO. 10[illegible])
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA 242.54 ACRES

SITE LOCATION

THE BIG-177 SITE IS LOCATED IN THE BOTTOM BOTTOM OF WILLEY FORK APPROXIMATELY 2,200 FT EAST OF THE CO. RT 10 AND CO. RT 15 INTERSECTION

BIG 192 LOCATION COORDINATES

BIG-177 SITE ENTRANCE
LATITUDE 39.58303 LONGITUDE -80.58337 (NAD 83)

BIG-177 WELL PAD (CENTER PAD)
LATITUDE 39.58363 LONGITUDE -80.58412 (NAD 83)

BIG-177 ASF PAD (CENTER PAD)
LATITUDE 39.58357 LONGITUDE -80.58376 (NAD 83)

SITE DISTURBANCE COMPUTATIONS

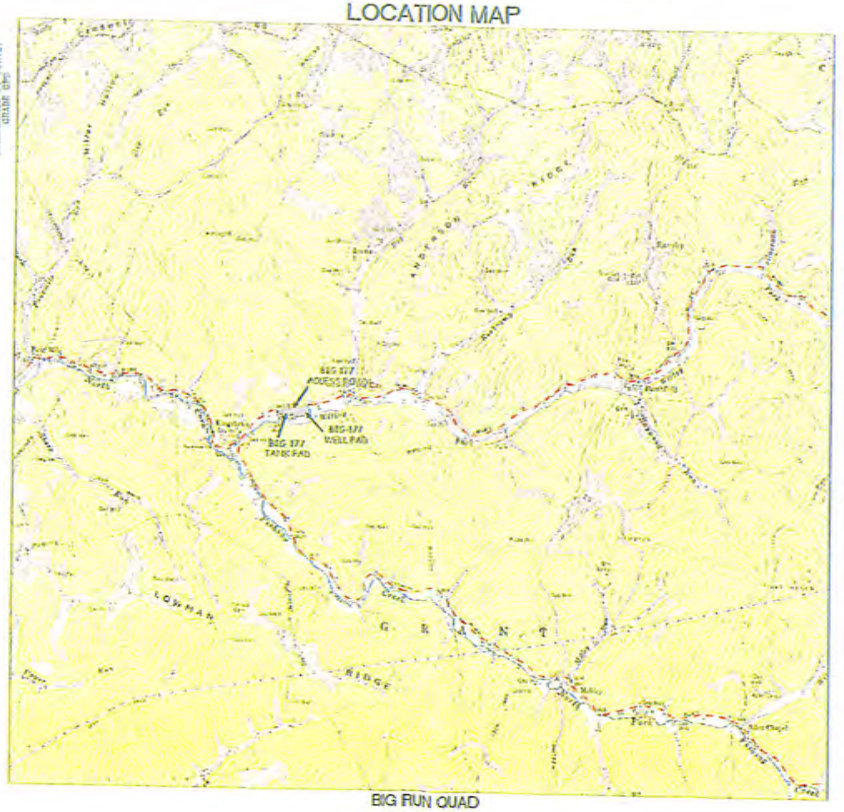
LIMITS OF DISTURBANCE ACREAGE= 6.5 ± ACRES

GENERAL DESCRIPTION

THE WELL PAD, AND TANK PAD HAVE BEEN CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS

GRID NORTH AND ELEVATIONS SHOWN HEREON WERE DETERMINED BY SURVEY GRADE GPS

LOCATION MAP



BIG RUN QUAD

SCALE: 1"=2000'

LIST OF DRAWINGS

1 - COVER SHEET
2 - CONSTRUCTION NOTES
3 - TANK PAD AND WELL PAD WITH ACCESS ROAD PROFILE
4 - DETAILS
5 - DETAILS
6 - DETAILS

LEGEND

LIMITS OF DISTURBANCE
COMPOST FILTER DOCK
EX BOUNDARY LINE
EX ROAD EDGE OF GRAVEL/DIRT
EX ROAD EDGE OF PAVEMENT
EX ROAD CENTERLINE
EX DITCHLINE
EX CULVERT
EX FENCELINE
EX GATE
EX OVERHEAD UTILITY
EX OVERHEAD UTILITY P/W
EX POWER POLE
EX GUY WIRE
EX TELEPHONE LINE
EX GASLINE
EX GASLINE R/W
EX WATERLINE
EX MONITORING WELL
EX TREELINE
EX REFERENCE TREE
EX DELINEATED STREAM
EX DELINEATED WETLAND
EX STRUCTURE
EX PIPELINE MARKER
BIG FOOTPRINT
EDGE OF GRAVEL PAD
EDGE OF BERM
EX SUPER SILT FENCE
EX REINFORCED SILT FENCE
BERM
GRAVEL
GRAVEL
ORIGINAL GROUND 2' CONTOURS
AS BUILT 2' CONTOURS
PHOTO NUMBER & LOCATION
AS-BUILT WELL LOCATIONS
PROPOSED WELL LOCATIONS
SPOT ELEVATIONS
MATCHLINE
ADDITIONAL LOD AREA

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(Section XIV: Chapter 24-C)
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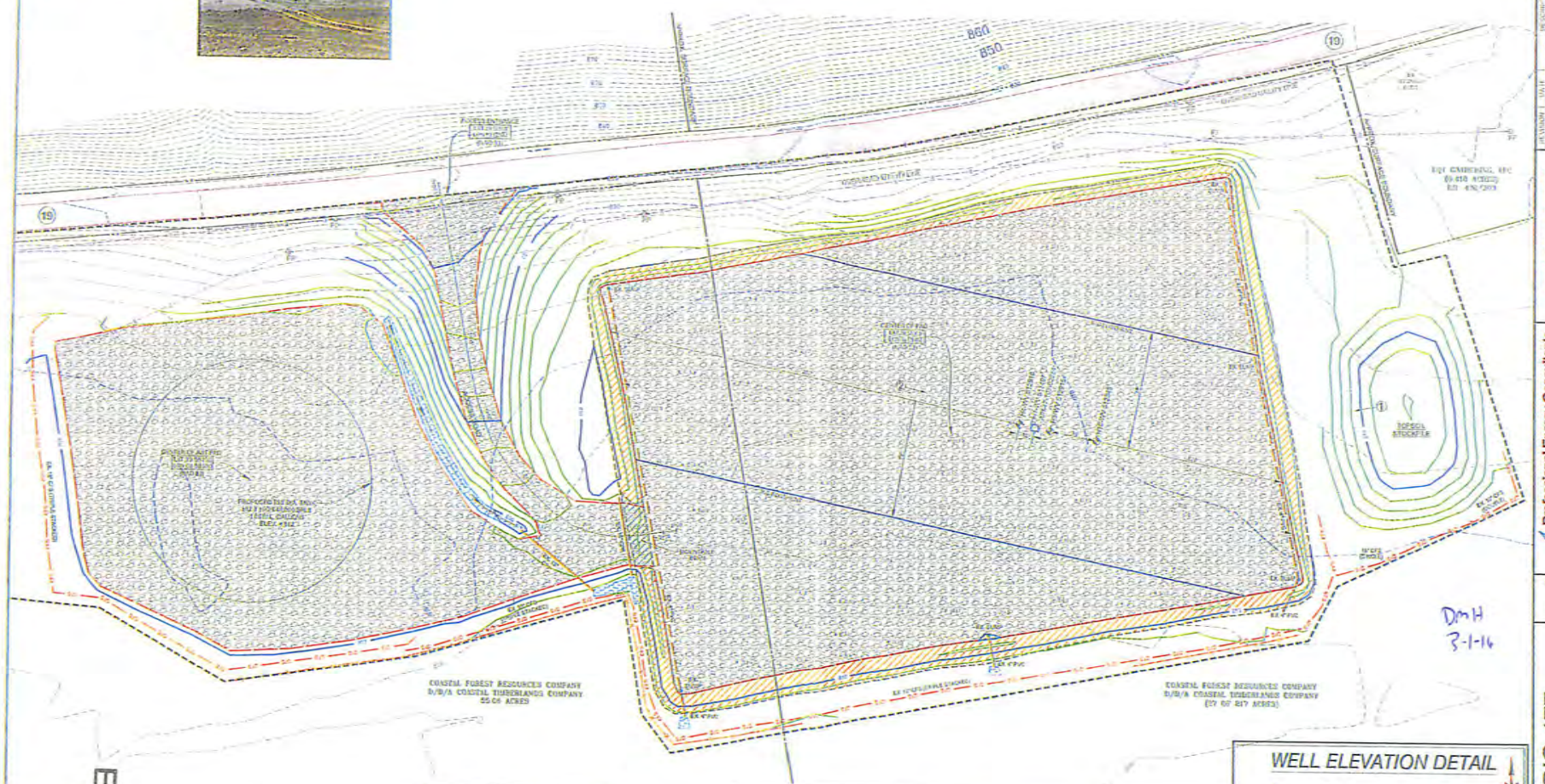
BIG-177
SITE AS-BUILT
THIS DOCUMENT WAS PREPARED BY SMITH LAND SURVEYING, INC. FOR: EQT PRODUCTION COMPANY

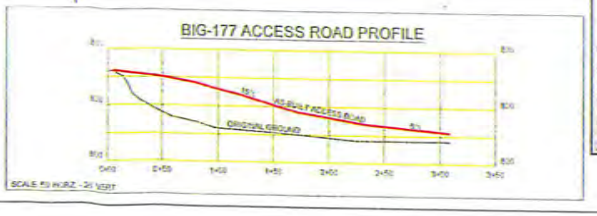
DATE 9-8-15
EQT
SCALE 1"= 2000'
DESIGNED BY DBS
FILE NO 6806
SHEET 1 OF 6

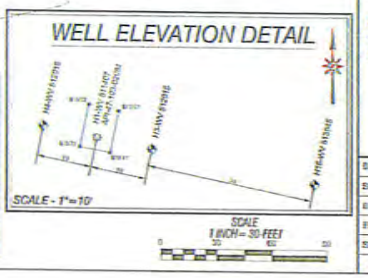
47103031 51

BIG-177 SITE AS-BUILT

SITUATE ON THE WATERS OF WILLEY FORK OF
NORTH FORK FISHING CREEK
IN GRANT DISTRICT, WETZEL COUNTY, WEST VIRGINIA







SCALE
1 INCH = 30 FEET

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PROJECT MGMT.
SLS

THIS DOCUMENT WAS PREPARED BY SOUTH LAND SURVEYING, INC FOR EQT

BIG-177
SITE AS-BUILT

THIS DOCUMENT WAS PREPARED BY SOUTH LAND SURVEYING, INC FOR EQT

DATE	8-25-15
SCALE	AS NOTED
DESIGNED BY	GDS
FILE NO.	6826
SHEET	3 OF 6

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4710303151

Anticipated Frac Additives
Chemical Names and CAS numbers

Material	Ingredient	CAS Number
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7

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Environmental Protection

WW-6AW
(1-12)

API NO. 103-03151
OPERATOR WELL NO. BIG177 513845
Well Pad Name: BIG177

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

VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A
The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions
Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided,* That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey V. Saunders, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	West Virginia	WVSPN NAD 27	Easting:	1,694,484.906
County:	Wetzel		Northing:	396,130.052
District:	Center	Public Road Access:		
Quadrangle:	BIG RUN	Generally used farm name:		
Watershed:				

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that EQT Production Company drills the well on WV North NAD27 coordinates of North 396,130.052, East 1,694,484.906. This statement does not serve as notice that CNX Land LLC has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by CNX Land LLC mining activity. This Voluntary Statement of No Objection does not waive CNX Land LLC's Common Law Property Rights in the State of West Virginia.**

*Please check the box that applies	FOR EXECUTION BY A NATURAL PERSON
☐ SURFACE OWNER	Signature:
☐ SURFACE OWNER (Road and/or Other Disturbance)	Print Name:
☐ SURFACE OWNER (Impoundments/Pits)	Date:
☒ COAL OWNER OR LESSEE	**FOR EXECUTION BY A CORPORATION, ETC.** Company: CNX Land LLC
☒ COAL OPERATOR	By: Casey V. Saunders
☐ WATER PURVEYOR	Its: Senior Project Engineer
☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD	Signature: Casey V. Saunders Date: 3/2/2016

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Environmental Protection

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