



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

April 24, 2015

WELL WORK PERMIT

Horizontal 6A Well

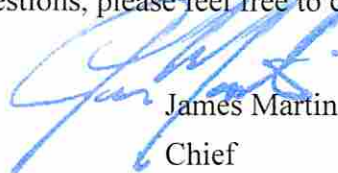
This permit, API Well Number: 47-1706714, issued to EQT PRODUCTION COMPANY, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, 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: 515969
Farm Name: MORRIS, I.L.
API Well Number: 47-1706714
Permit Type: Horizontal 6A Well
Date Issued: 04/24/2015

Promoting a healthy environment.

04/24/2015

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 fifty (50) 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. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Production Company

306686	017	7	526
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Operator ID County District Quadrangle

2) Operator's Well Number: 515969 Well Pad Name: OXF153

3) Farm Name/Surface Owner : I L Morris Public Road Access: 19/11

4) Elevation, current ground: 1,139.0 Elevation, proposed post-construction: 1,141.0

5) Well Type: (a) Gas Oil Underground Storage
Other _____

(b) If Gas: Shallow Deep

Horizontal

6) Existing Pad? Yes or No: yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
Target formation is Marcellus at a depth of 6560' with the anticipated thickness to be 58 feet and anticipated target pressure of 2951 PSI

8) Proposed Total Vertical Depth: 6560'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 12,948

11) Proposed Horizontal Leg Length 5,170

12) Approximate Fresh Water Strata Depths: 49, 442

13) Method to Determine Fresh Water Depth: By offset wells

14) Approximate Saltwater Depths: 1365, 1407, 1457

15) Approximate Coal Seam Depths: none reported

16) Approximate Depth to Possible Void (coal mine, karst, other): None reported

17) Does proposed well location contain coal seams directly overlying or adjacent to an active mine?

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

DCN
4-14-2015
Casing change
Received
APR 21 2015

CASING AND TUBING PROGRAM

18)

TYPE	Size (in)	New or Used	Grade	Weight per lb/ft.	FOOTAGE: for Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu.Ft.)
Conductor	20	New	MC-50	81	40	40	38 C.T.S.
Fresh Water	13 3/8	New	J-55	54	592	592	528 C.T.S.
Coal	-	-	-	-	-	-	-
Intermediate	9 5/8	New	A-500	40	2,967	2,967	1,172 C.T.S.
Production	5 1/2	New	P-110	20	12,948	12,948	See Note 1
Tubing	2 3/8		J-55	4.6			May not be run, if run will be set 100' less than TD
Liners							

*DCW
4-14-2015*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	24	0.375	-	Construction	1.18
Fresh Water	13 3/8	17 1/2	0.38	2,730	* See Note 2	1.21
Coal						
Intermediate	9 5/8	12 3/8	0.395	3,950	* See Note 2	1.21
Production	5 1/2	8 1/2	0.361	12,640	-	1.27/1.86
Tubing						
Liners						

Packers

Kind:	N/A		
Sizes:	N/A		
Depths Set:	N/A		

Note 1: EQT plans to bring the TOC on the production casing cement job 1,000' above kick off point, which is at least 500' above the shallowest production zone, to avoid communication.

Note 2: Reference Variance 2014-17. (Attached)

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APR 21 2015

Office of Oil and Gas
 WV Dept. of Environmental Protection

04/24/2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and complete a new horizontal well in the Marcellus formation. The vertical to go down to an approximate depth of 5009'.
Then kick off the horizontal leg into the Marcellus using a slick water frac.

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 treating pressures are expected to average approximately 8500 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): 11.5

22) Area to be disturbed for well pad only, less access road (acres): 11.3

23) Describe centralizer placement for each casing string.

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Production: One spaced every 1000' from KOP to Int csg shoe

24) Describe all cement additives associated with each cement type. Surface (Type 1 Cement): 0-3% Calcium Chloride
Used to speed the setting of cement slurries.

0.4% flake. Loss Circulation Material (LCM) is used to combat the loss of the cement slurry to a thief zone.

Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement slurries. 0.4% flake. Loss Circulation Material (LCM) is used to combat the loss of whole drilling fluid or cement slurry (not filtrate) to a thief zone.

Production:

Lead (Type 1 Cement): 0.2-0.7% Lignosulfonate (Retarder). Lengthens thickening time.

0.3% CFR (dispersant). Makes cement easier to mix.

Tail (Type H Cement): 0.25-0.40% Lignosulfonate (Retarder). Lengthens thickening time.

0.2-0.3% CFR (dispersant). This is to make the cement easier to mix.

60 % Calcuim Carbonate. Acid solubility.

0.4-0.6% Halad (fluid loss). Reduces amount of water lost to formation.

25) Proposed borehole conditioning procedures. Surface: Circulate hole clean (Approximately 30-45 minutes) rotating & reciprocating

one full joint until cuttings diminish at surface. When cuttings returning to surface diminish, continue to circulate an additional 5 minutes. To ensure that there is no fill, short trip two stands with no circulation. If there is fill, bring compressors back on and circulate hole clean. A constant rate of higher than expected cuttings volume likely indicates washouts that will not clean up.

Intermediate: Circulate hole clean (Approximately 30-45 minutes) rotating & reciprocating one full joint until cuttings diminish at surface. When cuttings returning to surface diminish, continue to circulate an additional 5 minutes. If foam drilling, to enhance hole cleaning use a soap sweep or increase injection rate & foam concentration.

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.

received
APR 21 2015

*Note: Attach additional sheets as needed.

4701706714



west virginia department of environmental protection

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Charleston, WV 25304
(304) 926-0450
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Earl Ray Tomblin, Governor
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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,

A handwritten signature in black ink that reads "James Peterson" followed by a stylized set of initials.

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

Received
Office of Oil & Gas

JAN 09 2015

04/24/2015



west virginia department of environmental protection

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**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.

Promoting a healthy environment.

Received
Office of Oil & Gas
JAN 09 2015

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

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Office of Oil & Gas

JAN 09 2015

04/24/2015

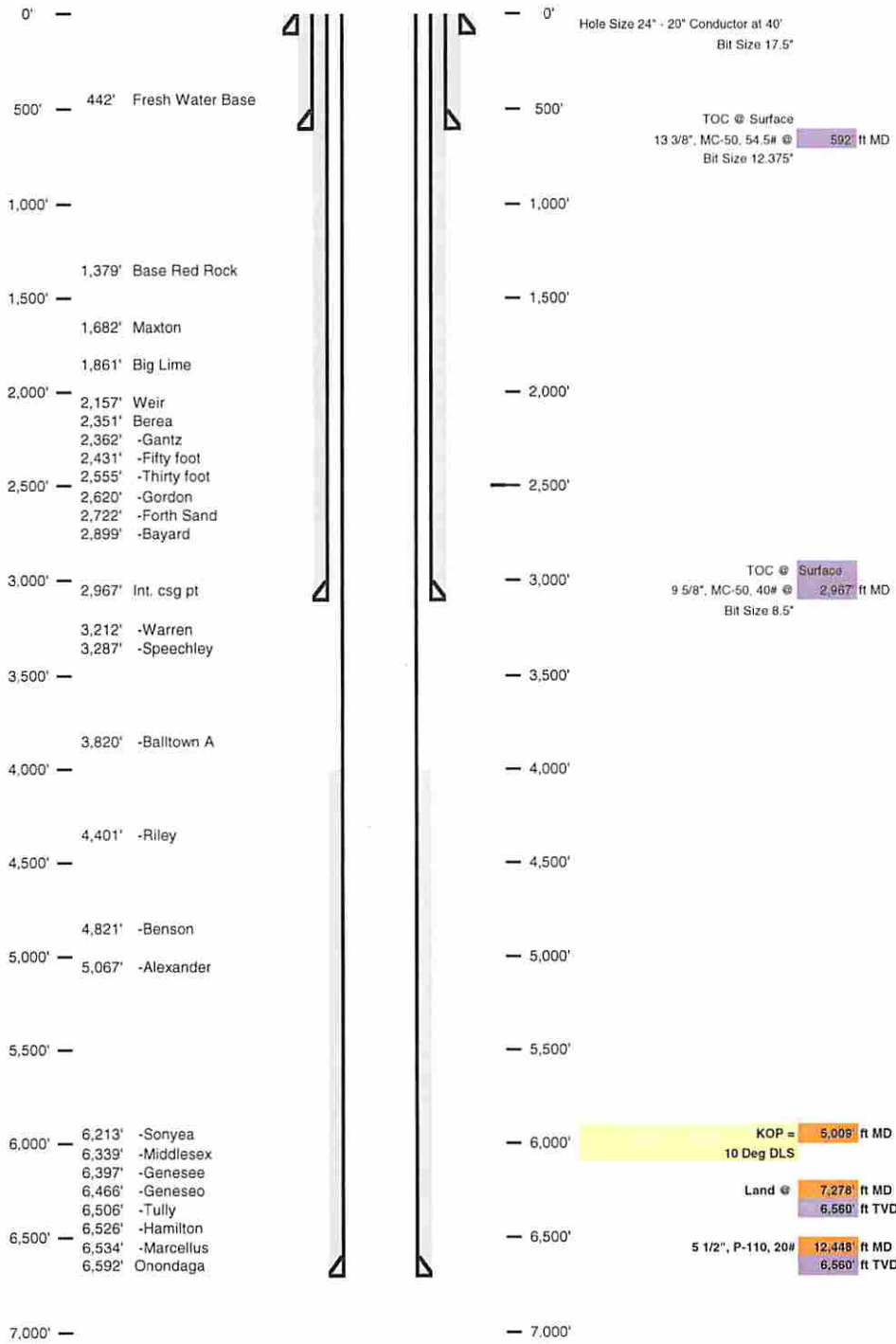
017-06714

Well Schematic
EQT Production

Well Name 515969 (OXF153H6)
County Doddridge
State West Virginia

Elevation KB:
Target
Prospect
Azimuth
Vertical Section

1154
Marcellus
303
6237



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APR 21 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

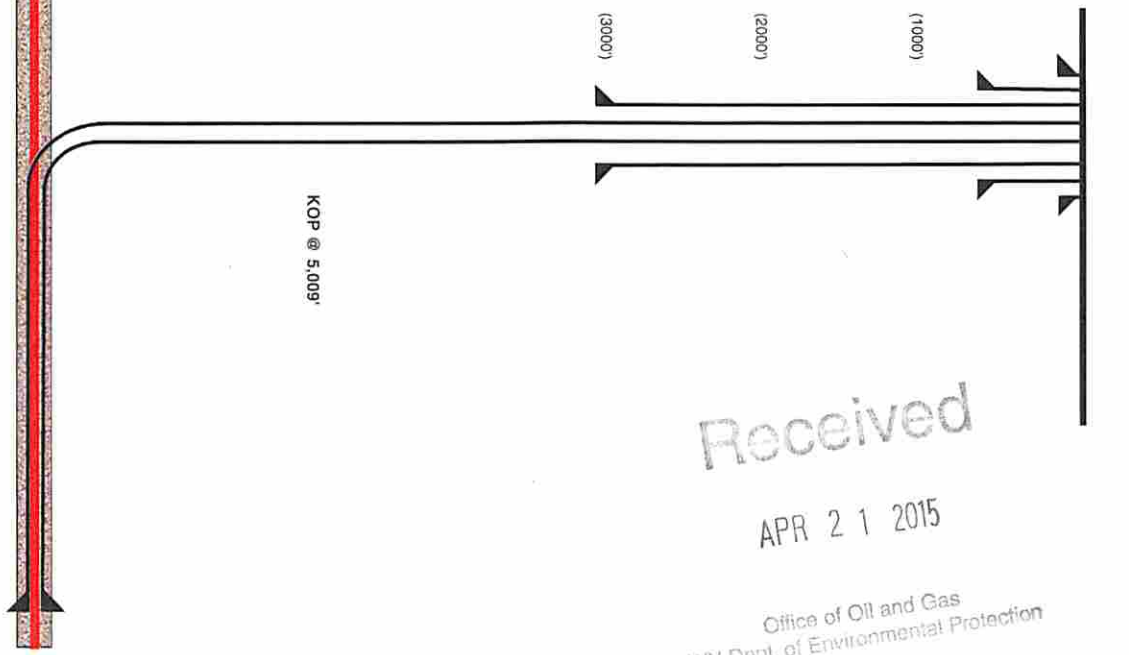
04/24/2015

017-06714

Well 515969 (OXF-153H6)
EQT Production
 Oxford
 Doddridge
 West Virginia

Vertical Section 303
 Azimuth 303
 6237

TVD Depth (feet)	Formation Tops (TVD)	Formation
0		
250'		
500'	412	Base Fresh Water
750'		
1,000'		
1,250'		
1,500'	1379	Base Red Rock
1,750'	1662 - 1717	Maxton
2,000'	1861 - 1883	Big Lime
2,250'	2157 - 2185	War
2,500'	2351 - 2358	Berna
2,750'	2362 - 2402	Gantz
3,000'	2431 - 2468	Filly foot
3,250'	2555 - 2570	Thirty foot
3,500'	2620 - 2642	Gordan
3,750'	2722 - 2739	Forth Sand
4,000'	2899 - 2917	Bayard
4,250'	2967	Int. cas pl
4,500'	3312 - 3270	Warren
4,750'	3287 - 3301	Speechley
5,000'		
5,250'		
5,500'		
5,750'		
6,000'		
6,250'		
6,500'		
6,750'		



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 APR 21 2015
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Hole Size (inches)	Casing Type	Casing Size (inches)	WT (ppf)/Grade
24	Conductor	20	81#/MC-50
17 1/2	Surface	13 3/8	54.5#/U-55
12 3/8	Intermediate	9 5/8	40#/A-500
8 1/2	Production Casing	5 1/2	20#/P-110

Proposed Well Work:
 Drill and complete a new horizontal well in the Marcellus formation.
 The vertical drill to go down to an approximate depth of 5009'.
 Then kick off the horizontal leg into the Marcellus using a slick water frac.

WW-9
(5/13)

Page 1 of 2
API No. 47 - 017 - 0
Operator's Well No. 515969

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 (HUC10) Chapman Run of South Fork Hughes River Quadrangle Oxford 7.5
Elevation 1139.0 County Doddridge District Southwest

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: flowback water & residual solids

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 60

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 _____)

*DCW
1-22-2015*

Will closed loop system be used? 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? Air, freshwater, oil based, etc. _____
Air is used to drill the top-hole sections of the wellbore, _____
Surface, Intermediate, and Pilot hole sections, water based _____
mud is used to drill the curve and lateral. _____

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

Additives to be used in drilling medium? MILBAR, Viscosifer, Alkalinity Control, Lime, Chloride Salts, Rate Filtration Control, Deflocculant, Lubricant, Detergent, Defoaming, Walnut Shell, X-Cide, SOLTEX Terra. Of the listed chemicals the following are generally used when drilling on air: lubricant, detergent, defoaming. Water based fluids use the following chemicals: MILBAR, viscosifer, alkalinity control, lime, chloride salts, rate filtration control, deflocculant, lubricant, detergent, defoaming, walnut shell, x-cide, SOLTEX terra

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

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.

RECEIVED
Office of Oil and Gas

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.

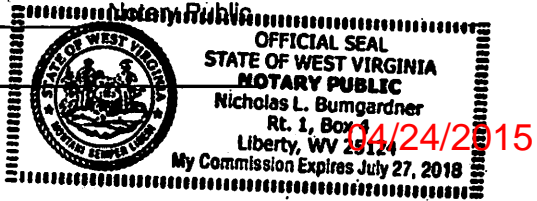
JAN 30 2015

WV Department of Environmental Protection

Company Official Signature *[Signature]*
Company Official (Typed Name) Victoria J. Roark
Company Official Title Permitting Supervisor

Subscribed and sworn before me this 29 day of DECEMBER, 20 14

My commission expires 7/27/2018



WW-9

Operator's Well No. 515969

Proposed Revegetation Treatment: Acres Disturbed 11.5 Prevegetation pH 5.9

Lime 3 Tons/acre or to correct to pH 6.5

Fertilize type Granular 10-20-20

Fertilizer Amount 13 lbs/acre (500 lbs minimum)

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.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Douglas Newlin

Comments: Preserve & Mulch any disturbed areas install and maintain ETS to WV Dept regulations

Title: Oil & Gas Inspector Date: 1-27-2015

Field Reviewed? (/) Yes () No

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Office of Oil and Gas

JAN 30 2015

WV Department of
Environmental Protection

4701706714

EQT Production Water plan
Offsite disposals for Marcellus wells

CWS TRUCKING INC.

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

BROAD STREET ENERGY LLC

37 West Broad Street
Suite 1100
Columbus, Ohio 43215
740-516-5381
Washington County/Belpre Twp.
Permit # 8462

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

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

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

KING EXCAVATING CO.

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

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

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04/24/2015



Where energy meets innovation.™

Site Specific Safety Plan

EQT OXF 153 Pad

Oxford
Doddridge County, WV

For Wells:

515969

515970

[Signature]
EQT Production

[Signature]
Permitting Supervisor
Title

12 29 -14
Date

Date Prepared:

October 23, 2014

[Signature]
WV Oil and Gas Inspector

Title

1-27-2015
Date

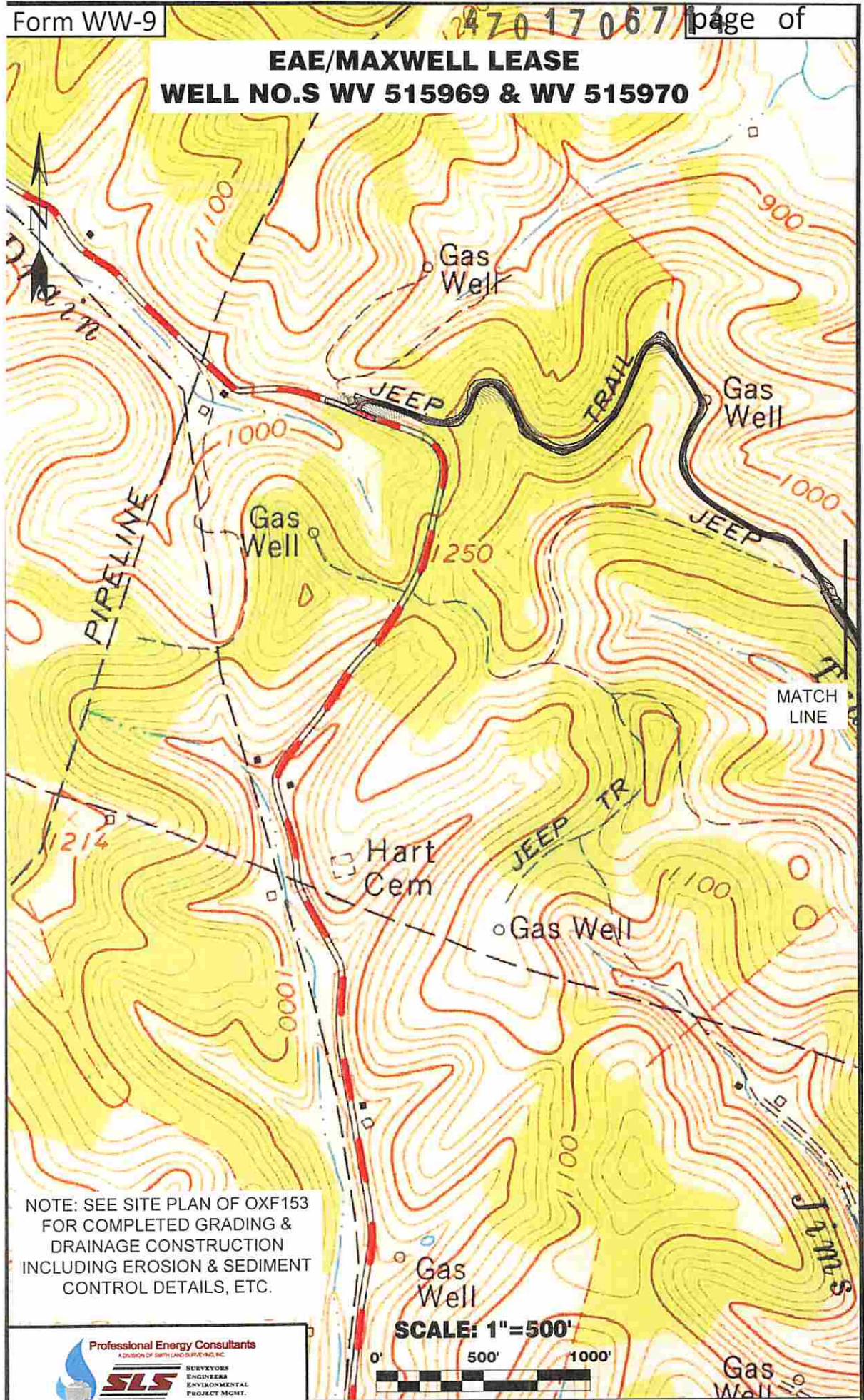
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Office of Oil and Gas

JAN 30 2015

WV Department of
Environmental Protection

04/24/2015

EAE/MAXWELL LEASE WELL NO.S WV 515969 & WV 515970



NOTE: SEE SITE PLAN OF OXF153 FOR COMPLETED GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

SCALE: 1"=500'



Professional Energy Consultants
A DIVISION OF SMITH LANDS & SURVEYING, INC.
SLS
SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.
13641 462 4634 WWW.SLSURVEYS.COM

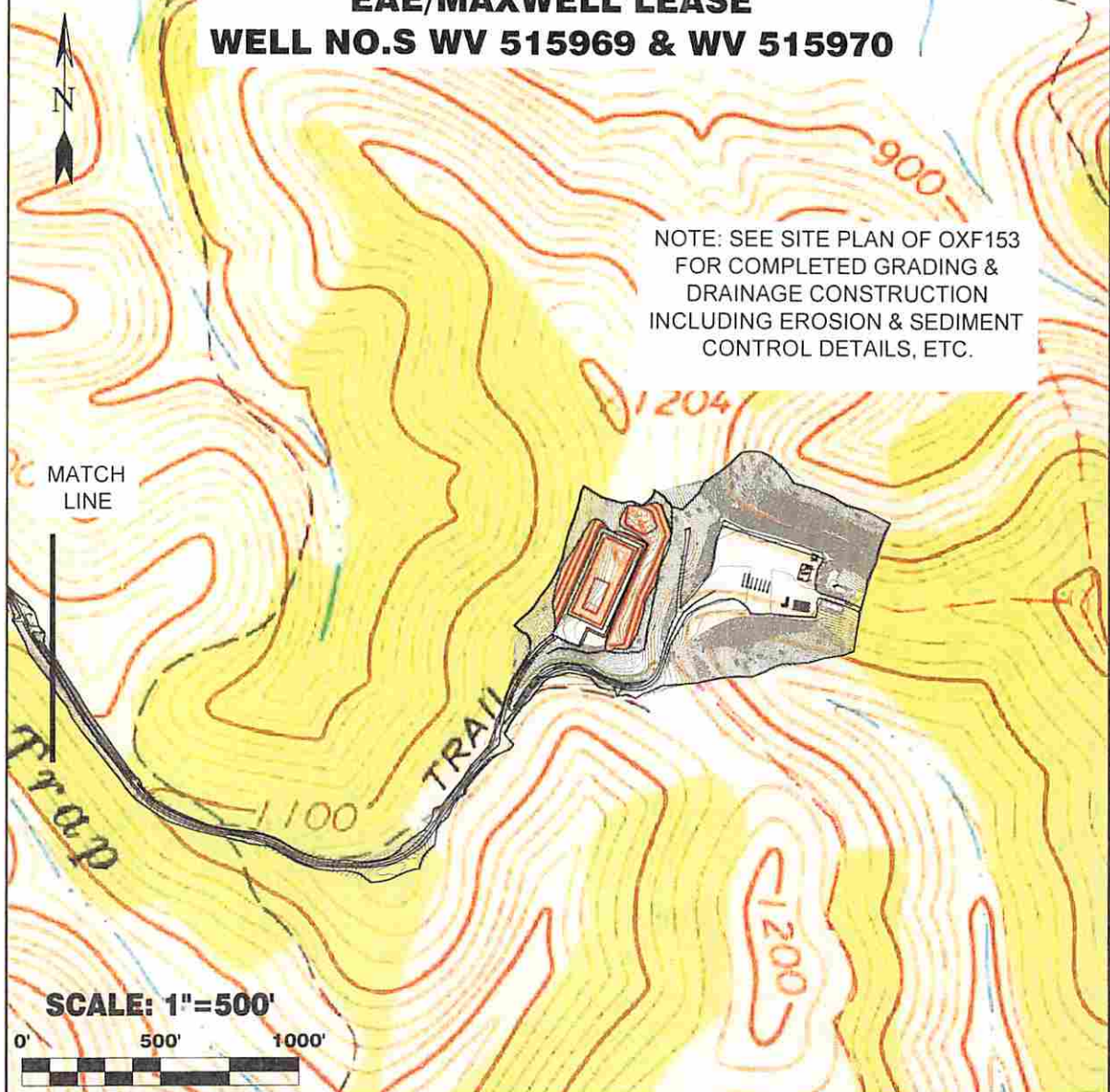
DRAWN BY K.D.W.	FILE NO. 7310	DATE 12-01-14	CADD FILE: 7310REC.dwg
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TOPO SECTION OF OXFORD 7.5' USGS TOPO QUADRANGLE

04/24/2015

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JAN 09 2015

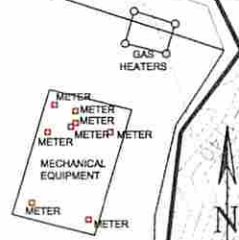
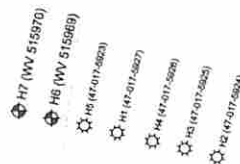
EAE/MAXWELL LEASE WELL NO.S WV 515969 & WV 515970



Detail Sketch for Proposed Wells WV 515969 & WV 515970

- OXF153 WELLS
 H1-WV 512497
 H2-WV 512498
 H3-WV 512499
 H4-WV 512445
 H5-WV 512446
 H6-WV 515969
 H7-WV 515970

NOTES: SEE SITE PLAN OF OXF153 FOR COMPLETED GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.



Not To Scale

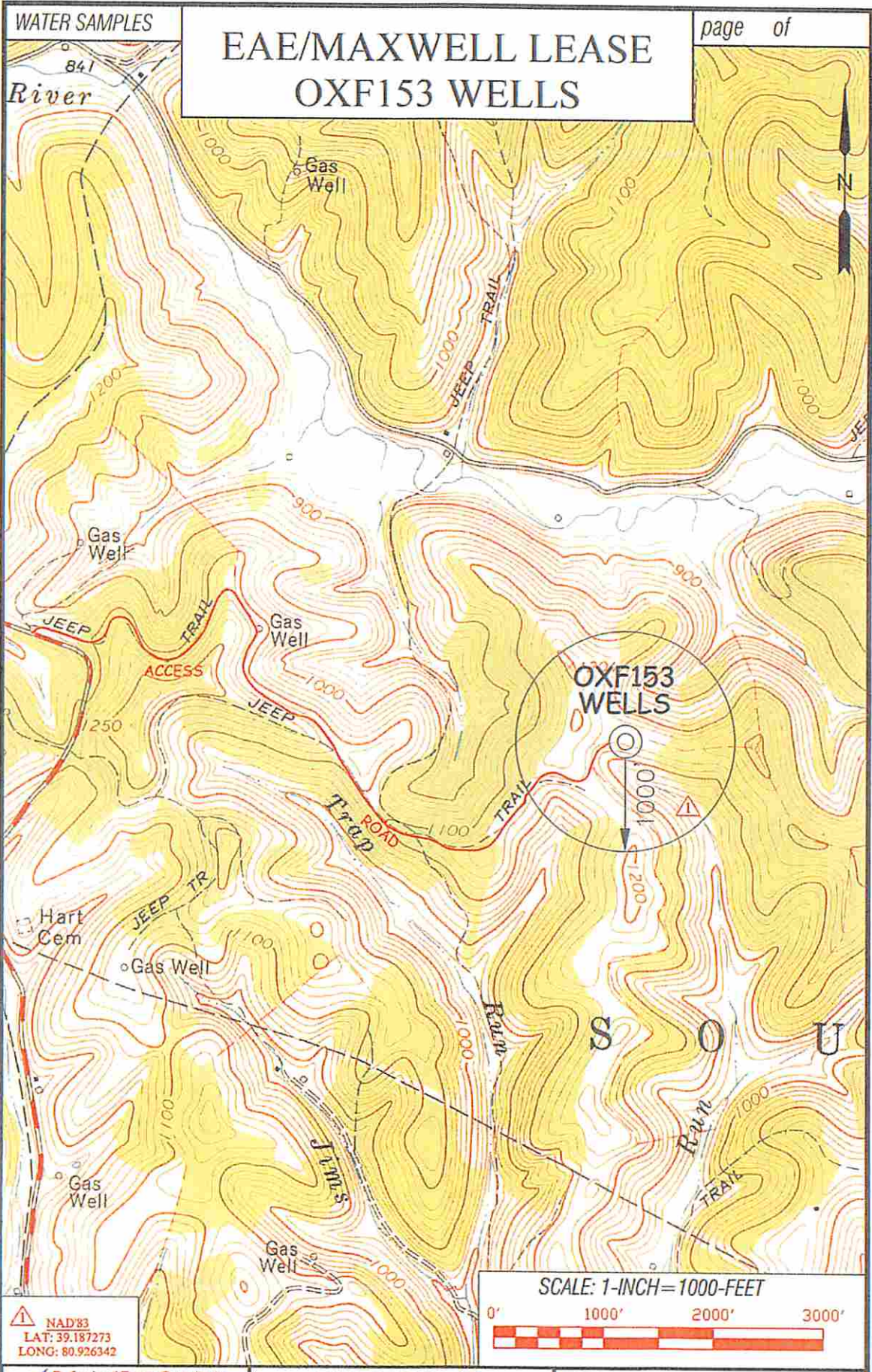
TOPO SECTION OF OXFORD 7.5' USGS TOPO QUADRANGLE

04/24/2015

DRAWN BY K.D.W.	FILE NO. 7310	DATE 12-01-14	CADD FILE: 7310REC.dwg
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 Office of Oil & Gas
 JAN 09 2015



WATER SAMPLES

EAE/MAXWELL LEASE OXF153 WELLS

page of

841
River

Gas Well

Gas Well

Gas Well

Hart Cem

Gas Well

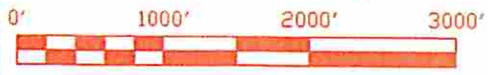
Gas Well

Gas Well

OXF153
WELLS

1000'

SCALE: 1-INCH=1000-FEET



NAD83
LAT: 39.187273
LONG: 80.926342

Professional Energy Consultants
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

TOPO SECTION OF:
OXFORD, WV 7.5' QUAD

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

DRAWN BY: K.D.W. FILE NO: 7310 DATE: 12/05/14 CADD FILE: 731000153052.dwg

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
SOUTH WEST	DODDRIDGE	10-02

04/24/2015



WELL INFORMATION AND POTENTIAL WATER WELL SAMPLE DATA SHEET

OPERATOR: EQT Production Company
LEASE NAME AND NUMBER: OXF-153 Well Pad

COMMENTS

The initial field and/or mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 2500' of the proposed well site. (For location of each site see attached area map.)

INDIVIDUAL CONTACTED OR NOTIFIED

Site: 1 Spacing _____ Owner/Occupant: L.L. Morris
 Address: P.O. Box 397 Glenville, WV 26351 Ph: (304)-462-5347
 Field Contact Date: N/A Located: No Date Located: N/A Source: Unknown
 If No, declined by who L.L. Morris Letter/Notice Date: 1st N/A 2nd N/A Certified (3rd) N/A
 Comments: Tax Map 10, Parcel 2
Letter Of Refusal Signed 12/05/2014

Site: 2 Spacing 815' Owner/Occupant: EQT production company
 Address: 115 Professional Place Bridgeport, WV 26330 Ph: (304)-848-0082
 Field Contact Date: 12/05/2014 Located: Yes Date Located: 12/05/2014 Source: Creek
 If No, declined by who _____ Letter/Notice Date: 1st N/A 2nd N/A Certified (3rd) N/A
 Comments: EQT production company is not the land owner but has requested the creek be tested.
Lat: 39.187273
Long: 80.926342

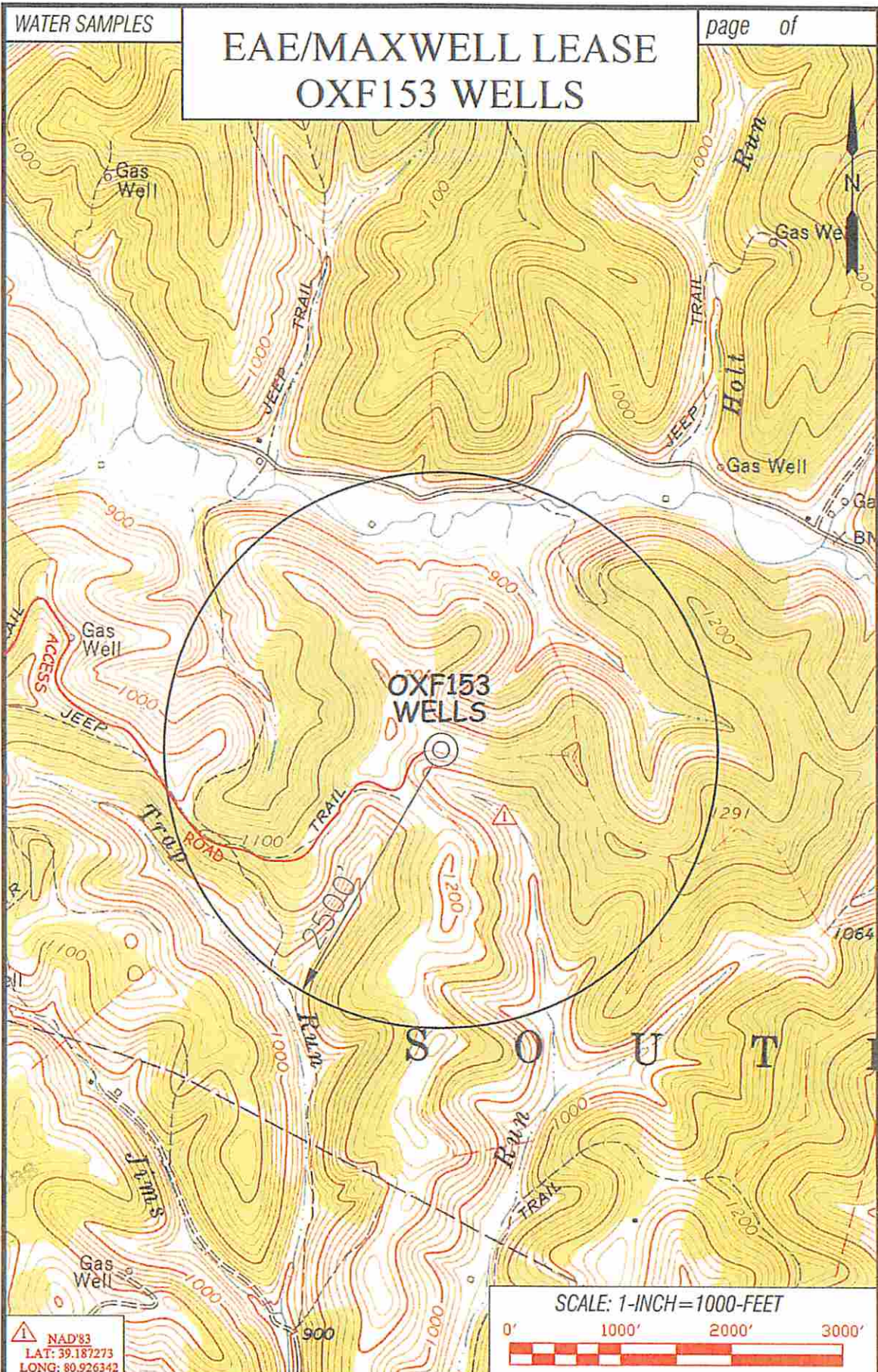
Site: 3 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Located: _____ Date Located: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____

Site: 4 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Located: _____ Date Located: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____


WATER SAMPLES

EAE/MAXWELL LEASE OXF153 WELLS

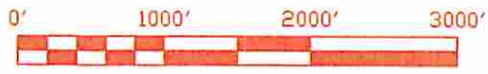
page of




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 NAD'83
LAT: 39.187273
LONG: 80.926342

SCALE: 1-INCH=1000-FEET



Professional Energy Consultants
A DIVISION OF SOUTHWEST ENERGY SERVICES, INC.
 **SLS** SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MANAGERS

DRAWN BY: K.D.W. FILE NO: 7310 DATE: 12/XX/14 CADD FILE: 7310021512325.dwg

TOPO SECTION OF:
OXFORD, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
SOUTH WEST	DODDRIDGE	10-02

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

04/24/2015

4701706714



SMITH LAND SURVEYING, INC.

P.O. BOX 150, GLENVILLE, WV 26351

(304) 462-5634 • FAX 462-5656

To Whom It May Concern:

Smith Land Surveying, Inc. of Glenville, WV has been contracted by:

EQT

To do some preliminary work for a proposed oil and gas well permit application.

Due to 1994 regulations set by the State of West Virginia Division of Environmental Protection, Department of Oil and Gas, operators are required to offer water testing for water wells or other non-public water sources that fall within 1500 feet of the proposed well. The operator is testing within 2500 feet of the well, if they are requested to do so by the resident or owner. This test will only help ensure the water quality control, which in turn benefits you as the resident or landowner.

Since your residence falls within the 2500 foot radius, you are entitled to have your potable water source(s) sampled and analyzed at an independent lab. Your lab analysis results would then be mailed to your home. This is done at no expense to you.

Please notify Smith Land Surveying immediately if you are interested in having your potable water tested. Please have this letter with you at the time of contact so that the client and well number may be referenced.

Thank you for your cooperation in this matter. I look forward to hearing from you at your earliest convenience. If you have any questions, please feel free to contact me at:

Smith Land Surveying, Inc.

Date: 12/5/14

PO Box 150

Glenville, WV 26351

Left/sent by: Daniel McKee

(304) 462-5634 (voice)

(304) 462-5656 (fax)

Well Number: OXF-153

E-Mail DMcKee@slssurveys.com

Tax Map / Parcel: 10/2

Doddridge County, WV Southwest District

*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your Water well/spring/or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined. Please include printed name along with signature.

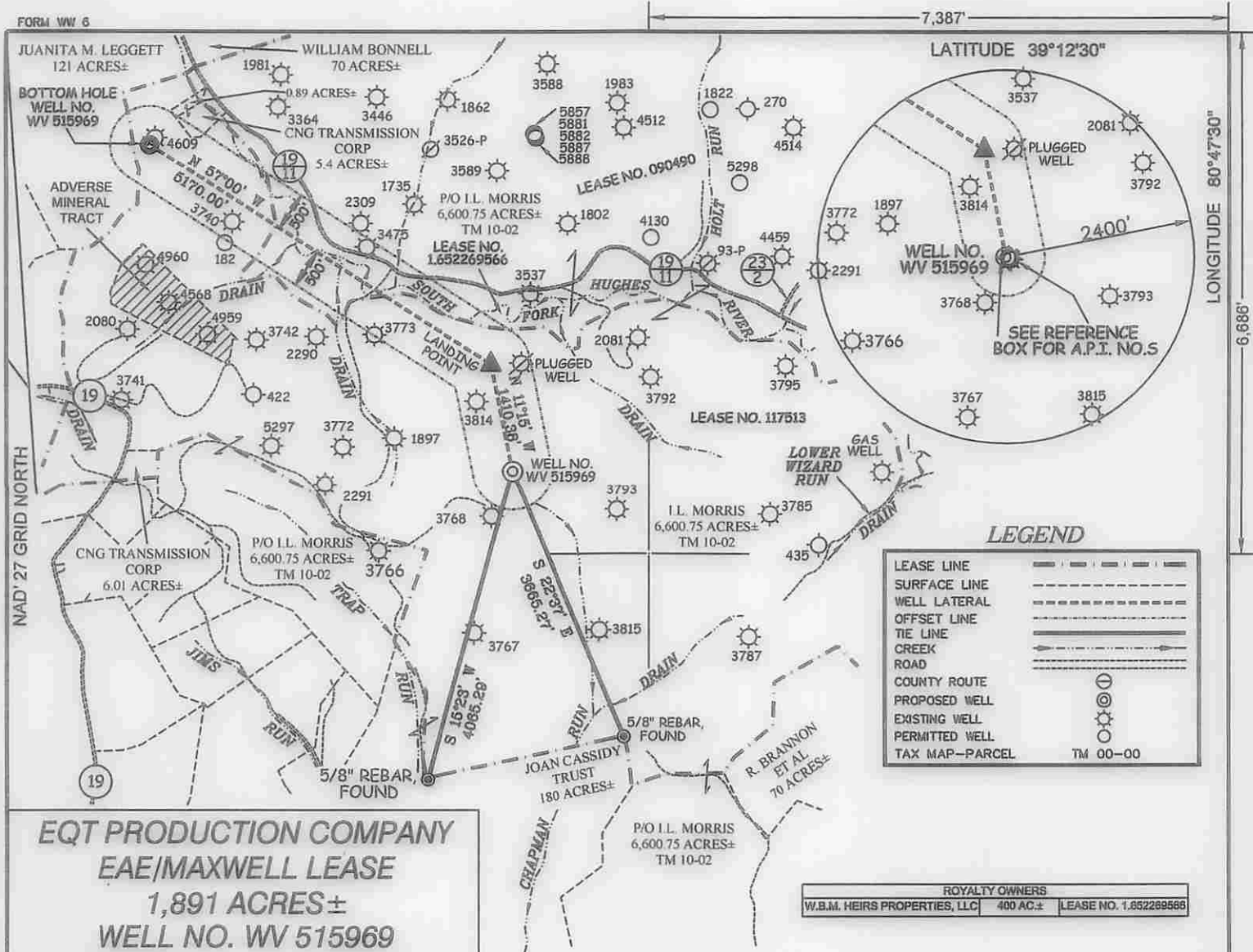
Signature: D. L. Morris

Date: 12/5/14

Received
Office of Oil & Gas

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04/24/2015



**EQT PRODUCTION COMPANY
EAE/MAXWELL LEASE
1,891 ACRES±
WELL NO. WV 515969**

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

NAD'27 S.P.C.(FT) N. 254,043.5 E. 1,626,511.2
NAD'27 GEO. LAT-(N) 39.189979 LONG-(W) 80.817729
NAD'83 UTM (M) N. 4,337,884.3 E. 515,755.8

LANDING POINT

NAD'27 S.P.C.(FT) N. 255,426.8 E. 1,626,235.9
NAD'27 GEO. LAT-(N) 39.193765 LONG-(W) 80.818772
NAD'83 UTM (M) N. 4,338,304.3 E. 515,664.9

BOTTOM HOLE

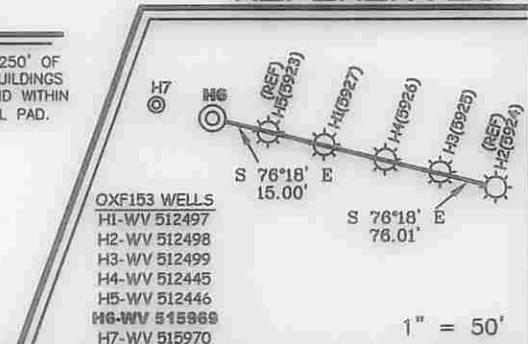
NAD'27 S.P.C.(FT) N. 258,242.6 E. 1,621,900.0
NAD'27 GEO. LAT-(N) 39.201319 LONG-(W) 80.834216
NAD'83 UTM (M) N. 4,339,140.0 E. 514,329.6

ROYALTY OWNERS		
W.B.M. HEIRS PROPERTIES, LLC	400 AC±	LEASE NO. 1.852269566

NOTES ON SURVEY

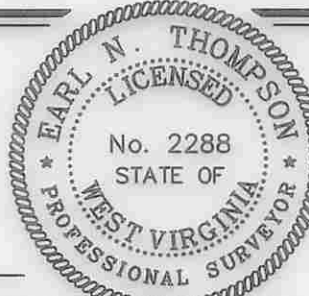
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.

REFERENCES



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*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE DECEMBER 1, 20 14
REVISED DECEMBER 29, 20 14
OPERATORS WELL NO. WV 515969
API WELL NO. 47-017-06714 *H6A*
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7310P515969R
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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

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

LOCATION: ELEVATION 1139'(GROUND)1141'(PROPOSED) WATERSHED CHAPMAN RUN OF SOUTH FORK HUGHES RIVER
DISTRICT SOUTHWEST COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'

SURFACE OWNER I.L. MORRIS ACREAGE 6,600.75±
ROYALTY OWNER W.B.M. HEIRS PROPERTIES, LLC ACREAGE 1,891± **04/24/2015**

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
ESTIMATED DEPTH TVD 6,532'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME
PERMIT

WW-6A1
(5/13)

Operator's Well No. 515969

**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
<u>117513</u>			Min 1/8 pd	
	William Brent Maxwell, et al	Pittsburgh & West Virginia Gas Co.		LB37/48
	Pittsburgh & West Virginia Gas Co.	Equitable Gas Co.		DB216/457
	Equitable Gas Company	Equitrans, Inc.		DB468/325
	Equitrans, Inc.	Equitable Production-Eastern States, Inc.		DB639/599
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB281/346
	Equitable Production Company	EQT Production Company		CB281/346
<u>1.652269566</u>				
	William Brent Maxwell, Jr., et al	Consolidated Gas Supply Corp.		LB103/206
	Consolidated Gas Supply Corp.	Consolidated Gas Transmission Corp.		LB315/583
	Consolidated Gas Transmission Corp.	CNG Development Co.		LB139/41
	CNG Development Co.	CNG Producing Co.		CB1096/124 (Delaware)
	CNG Producing Co.	Dominion Exploration & Production, Inc.		CB82/07 (Delaware)
	Dominion Exploration & Production, Inc.	EQT Production Co.		LB322/391

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.

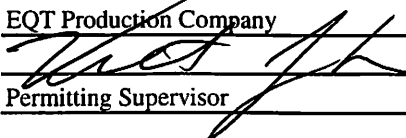
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**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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

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

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

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

Received
Office of Oil & Gas
JAN 09 2015

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

Date of Notice Certification: 1-9-15

API No. 47 - 017 - 0
Operator's Well No. 515969
Well Pad Name: OXF153

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:	<u>WV</u>	UTM NAD 83 Easting:	<u>515,755.80</u>
County:	<u>Doddridge</u>	UTM NAD 83 Northing:	<u>4,337,884.30</u>
District:	<u>Southwest</u>	Public Road Access:	<u>19/11</u>
Quadrangle:	<u>Oxford 7.5</u>	Generally used farm name:	<u>I L Morris</u>
Watershed:	<u>Chapman Run of South Fork Hughes River</u>		

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.

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED OR</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> NOTICE OF APPLICATION</p> <p style="text-align: center;">Received Office of Oil & Gas JAN 09 2015</p>	<p style="text-align: center;">OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---

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 affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

04/24/2015

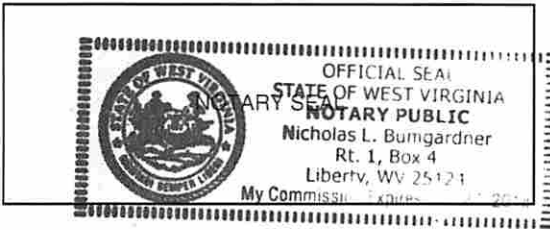
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Certification of Notice is hereby given:

THEREFORE, I *[Signature]*, 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
By: Victoria J. Roark
Its: Permitting Supervisor
Telephone: 304-848-0076

Address: P.O. Box 280
Bridgeport, WV 26330
Facsimile: 304-848-0040
Email: vroark@eqt.com



Subscribed and sworn before me this 29 day of DECEMBER, 2014
[Signature] Notary Public
My Commission Expires 7/27/2018

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
JAN 09 2015

WW-6A
(9-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515969
Well Pad Name: OXF153

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: 1-9-15 Date Permit Application Filed: 1-9-15

Notice of:

- [x] 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 [x] 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 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 requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of 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; 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 disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The 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 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 construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field 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 in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be 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 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 the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

- [x] Application Notice [x] WSSP Notice [x] E&S Plan Notice [x] Well Plat Notice is hereby provided to:

[x] SURFACE OWNER(s)
Name: I. L. (Ike) Morris
Address: P.O. Box 397
Glenville, WV 26351

Name: 0
Address: 0

[x] SURFACE OWNERS(s) (Road and/or Other Disturbance)
Name: I. L. (Ike) Morris
Address: P.O. Box 397
Glenville, WV 26351

Name: 0
Address: 0

[x] SURFACE OWNER(s) (Impoundments/Pits)
Name: I. L. (Ike) Morris
Address: P.O. Box 397
Glenville, WV 26351

[x] COAL OWNER OR LESSEE
Name: I. L. (Ike) Morris
Address: P.O. Box 397
Glenville, WV 26351

[] COAL OPERATOR
Name: 0
Address: 0

[x] SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: I. L. (Ike) Morris
Address: P.O. Box 397
Glenville, WV 26351

[] OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: 0
Address: 0

*Please attach additional forms if necessary

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Office of Oil & Gas

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04/24/2015

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WW6-A

Additional Coal Owners:

WBM Heirs Properties, LLC
P.O. Box 2395
Buckhannon, WV 26201 ✓

L.E. Sawyer Jr
aka Logan E Sawyer Jr
P.O. Box 584
Midland, TX 79702 ✓

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Office of Oil & Gas
JAN 09 2015

04/24/2015

4701706714

WW-6A
(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515969
Well Pad Name: OXF153

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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Office of Oil & Gas

JAN 09 2015

04/24/2015

WW-6A
(8-13)

4701706714

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515969
Well Pad Name: OXF153

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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Office of Oil & Gas
JAN 09 2015

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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WW-6A
(8-13)

API NO. 47 - 017 - 0
OPERATOR WELL NO. 515969
Well Pad Name: OXF153

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.

RECEIVED
Office of Oil & Gas
JAN 09 2015

04/24/2015

4701706714

Notice is hereby given by:

Well Operator: EQT Production Company
Telephone: 304-848-0082
Email: Vroark@eqt.com

Address: 115 Professional Place P.O. Box 280
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 deprivacyofficer@wv.gov.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

Victoria Roark

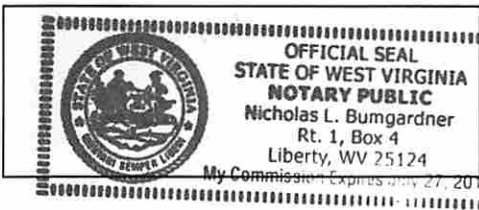
By: Victoria Roark

Its: Permitting Supervisor

Subscribed and sworn before on 29 day of DECEMBER, 2014

Notary Public

My Commission Expires 7/27/2018



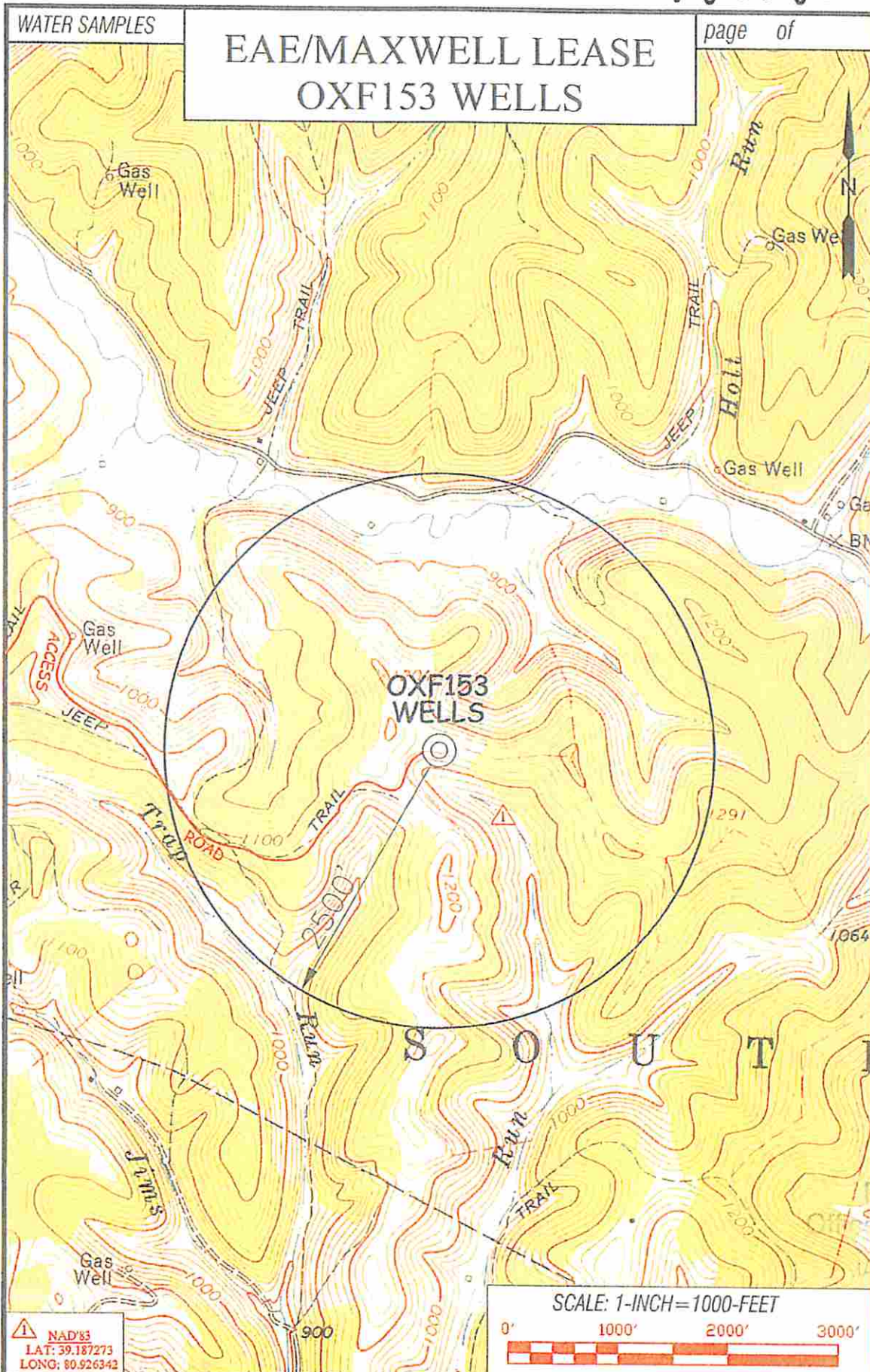
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WATER SAMPLES

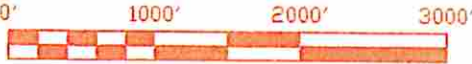
EAE/MAXWELL LEASE OXF153 WELLS

page of



 NAD83
 LAT: 39.187273
 LONG: 80.926342

SCALE: 1-INCH=1000-FEET



Professional Energy Consultants
 **SLS**
 SURVEYORS
 ENGINEERS
 ENVIRONMENTAL
 PROJECT MANAGERS
 DRAWN BY: K.D.W. FILE NO: 7310 DATE: 12/XX/14 CADD FILE: 731000715295.dwg

TOPO SECTION OF:
OXFORD, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
SOUTH WEST	DODDRIDGE	10-02

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

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04/24/2015

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: _____ **Date Permit Application Filed:** _____

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: _____	I. L. (Ike) Morris	Name: _____	0
Address: _____	P.O. Box 397	Address: _____	0
	Glennville, WV 26351		0

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	UTM NAD 83	Easting _____	515,755.80
County: _____	Doddridge		Northing _____	4,337,884.30
District: _____	Southwest		Public Road Access: _____	19/11
Quadrangle: _____	Oxford 7.5		Generally used farm name: _____	I L Morris
Watershed: _____	Chapman Run of South Fork Hughes River			

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

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JAN 09 2015

Notice is hereby given by:

Well Operator: _____	EQT Production Company	Authorized Representative: _____	Victoria Roark
Address: _____	115 Professional Place, P.O Box 280	Address: _____	115 Professional Place, P.O Box 280
	Bridgeport, WV 26330		Bridgeport, WV 26330
Telephone: _____	304-848-0076	Telephone: _____	304-848-0076
Email: _____	vroark@eqt.com	Email: _____	vroark@eqt.com
Facsimile: _____	304-848-0041	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.

04/24/2015

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WW-6A5
(1/12)

Operator Well No. 515969

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: 1-9-15 Date Permit Application Filed: 1-9-15

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: I. L. (Ike) Morris Name: _____ 0
Address: P.O. Box 397 Address: _____ 0
Glenville, WV 26351 _____ 0

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: WV UTM NAD 83 Easting: 515,755.800000
County: Doddridge Northing: 4,337,884.300000
District: Southwest Public Road Access: 19/11
Quadrangle: Oxford 7.5 Generally used farm name: I L Morris
Watershed: Chapman Run of South Fork Hughes River

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 Address: 115 Professional Place, P.O. Box 280
Telephone: 304-848-0082 Bridgeport, WV 26330
Email: vroark@eqt.com Facsimile: 304-848-0040

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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JAN 09 2015

04/24/2015



017-06714

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

March 12, 2015

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 OXF153 Well Site, Doddridge County

515969 OXF153H6

515970 OXF153H7

Dear Mr. Martin,

This well site will be accessed from Permit # 04-2015-0149 which has been applied for by EQT Production Company for access to the State Road for a well pad located off of County Rt. 19 SLS in Doddridge County.

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, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Nick Bumgardner
EQT Production Company
CH, OM, D-4
File

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Office of Oil and Gas

MAR 16 2015

WV Department of
Environmental Protection

4701706714

**Anticipated Frac Additives
Chemical Names and CAS numbers**

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
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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Office of Oil & Gas

JAN 09 2015

04/24/2015

4701706714

EQT OXF 153 MODIFICATION SITE PLAN

EQT PRODUCTION COMPANY

(PROPOSED WELL NO. WV515969 (H6) AND WV515970 (H7))

SITUATE ON THE WATERS OF UNNAMED TRIBUTARIES TO SOUTH FORK HUGHES RIVER, TRAP RUN, AND CHAPMAN RUN IN SOUTHWEST DISTRICT, DODDRIDGE COUNTY, WV

PROJECT INFORMATION
 PROJECT NAME: EQT OXF 153
 COUNTY: DODDRIDGE COUNTY, WV
 SURFACE OWNERS:
 I. MORRIS
 J. MORRIS
 DODDRIDGE COUNTY, WV
 TAX MAP: 10 PARCEL 2
 TOTAL DISTURBANCE AREA: 10.6 +/- ACRES

LOCATION COORDINATES
 THE EQT OXF 153 SITE ENTRANCE IS LOCATED 2.6 MI. N. NORTH OF THE JUNCTION OF CR 19 AND CR 32. THE WELL PAD IS LOCATED 4.1 MILES N. NORTH OF THE SAME JUNCTION.
LOCATION COORDINATES
 EQT OXF 153 WELL PAD CENTER
 LATITUDE: 39 19'05" LONGITUDE: 80 47'54" (NAD 83)
 EQT OXF 153 ASSOCIATED FLOWBACK PIT CENTER
 LATITUDE: 39 18'57" LONGITUDE: 80 48'03" (NAD 83)
 EQT OXF 153 FLOWBACK PIT CENTER
 LATITUDE: 39 18'24" LONGITUDE: 80 48'44" (NAD 83)

GENERAL DESCRIPTION
 THE WELL PAD, ACCESS ROAD, AND FLOWBACK PIT ARE BEING CONSTRUCTED TO AND IN THE DEVELOPMENT OF AN INDIVIDUAL WAREHOUSING SHAFT GAS WELLS.

SITE DISTURBANCE COMPUTATIONS
 TOTAL AREA = 11.9 +/- ACRES
 ACCESS ROAD = 4.2 +/- ACRES
 TOTAL SITE DISTURBANCE AREA = 18.6 +/- ACRES

ENTRANCE PERMIT
 EQT PRODUCTION COMPANY WILL OBTAIN AN ENTRANCE PERMIT FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MISS UTILITY STATEMENT
 MISS UTILITY OF WEST VIRGINIA HAS NOTED FOR THE LOCATION OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET NUMBERS IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

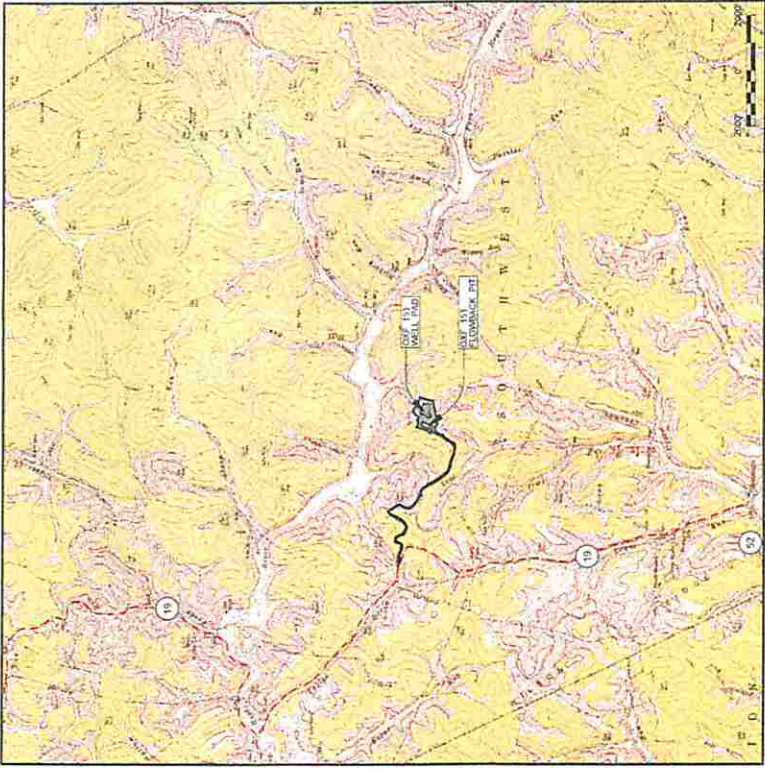
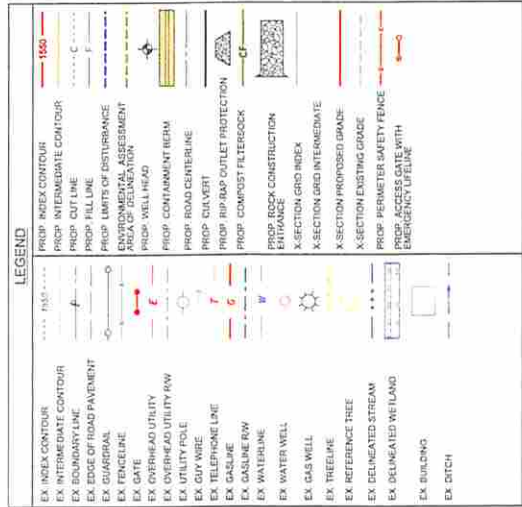
ENVIRONMENTAL NOTES
 A WETLAND DELINEATION WAS PERFORMED BY POTESTA & ASSOCIATES, INC. ON 12/20/14 TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE JURISDICTION OF THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WDPE). THE JANUARY 7, 2015 REPORT FOR EQT OXF 153 PREPARED BY POTESTA & ASSOCIATES, INC. (SUMMARIES REPRESENT A JURISDICTIONAL DETERMINATION FOR THE DOES NOT, IN ANY WAY, STRONGLY RECOMMEND THAT THE APPROPRIATED AGENCIES BE CONSULTED IN AN REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE AGENCIES THAT HAVE JURISDICTION OVER THE IMPACTS TO WATERS OF THE U.S., INCLUDING WETLANDS AND STREAM CROSSINGS.

RESTRICTIONS NOTES
 1. THERE ARE WETLANDS, PERMANENT STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE PAD.
 2. THERE ARE NO NATURALLY OCCURRING TRIBUTARY STREAMS WITHIN 300 FEET OF THE PAD AND LOD.
 3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE PAD AND LOD.
 4. THERE ARE NO DEVELOPED SPRING DISCHARGES WITHIN 250 FEET OF THE WELLS BEING DRILLED. STAKE AND BATHYMETRY DATA WAS NOT AVAILABLE FOR ANY EXISTING WATER WELL OR DEVELOPED SPRING DISCHARGES DURING CONSTRUCTION.
 5. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 250 FEET OF THE CENTER OF THE PAD.
 6. THERE ARE NO OCCUPIED DWELLING STRUCTURES LARGER THAN 1,500 SQUARE FEET WITHIN 425 FEET OF THE CENTER OF THE PAD.

RECEIVED
 Office of Oil and Gas
 JAN 30 2015
 WV Department of
 Environmental Protection

LIST OF DRAWINGS

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	OVERALL PLAN SHEET INDEX
4, 6	ACCESS ROAD AND WELL SITE LAYOUT
9-12	WELL PAD SECTIONS
13-15	ACCESS ROAD PROFILES
16-20	ACCESS ROAD SECTIONS AND TYPICAL SECTIONS
21-25	RECLAMATION PLAN
26-30	CONSTRUCTION DETAILS
31	CONSTRUCTION QUANTITIES



AMES LIBRY of West Virginia
 West 100-24-1444
 (Eastern WV, Charleston, W. Va.)
 Business stamp library (not for sale)
 IT'S THE LAW!

OXFORD DISTRICT
 7.5-MINUTE SERIES



OXF 153 MODIFICATION
 SOUTHWEST DISTRICT
 DODDRIDGE COUNTY, WV

DATE: 01/27/2015
 SCALE: AS SHOWN
 DESIGNED BY: JMR
 FILE NO.: 04-041
 SHEET: 1 OF 31
 REV:

OPERATOR
 EQT PRODUCTION COMPANY
 11000 W. STATE STREET
 P.O. BOX 280
 BRIDGEPORT, WV 26030
 PHONE: (505) 348-3570

ENGINEER
 STANTEC CONSULTING, INC.
 11000 W. STATE STREET
 FARMINGTON, WV 26554
 PHONE: (304) 317-8401

SURVEYOR
 SMITHLAND SURVEYING, INC.
 11000 W. STATE DRIVE
 P.O. BOX 150
 GLENVILLE, WV 26031
 PHONE: (304) 462-5554

4701706714

04/24/2015

OXF-153 SITE AS-BUILT EQT PRODUCTION COMPANY

EXISTING WELL #. 47-017-5923, 47-017-5927, 47-017-5926, 47-017-5925 & 47-017-5924

SITUATE ON THE WATERS OF SOUTH FORK HUGHES RIVER
IN SOUTHWEST DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA.

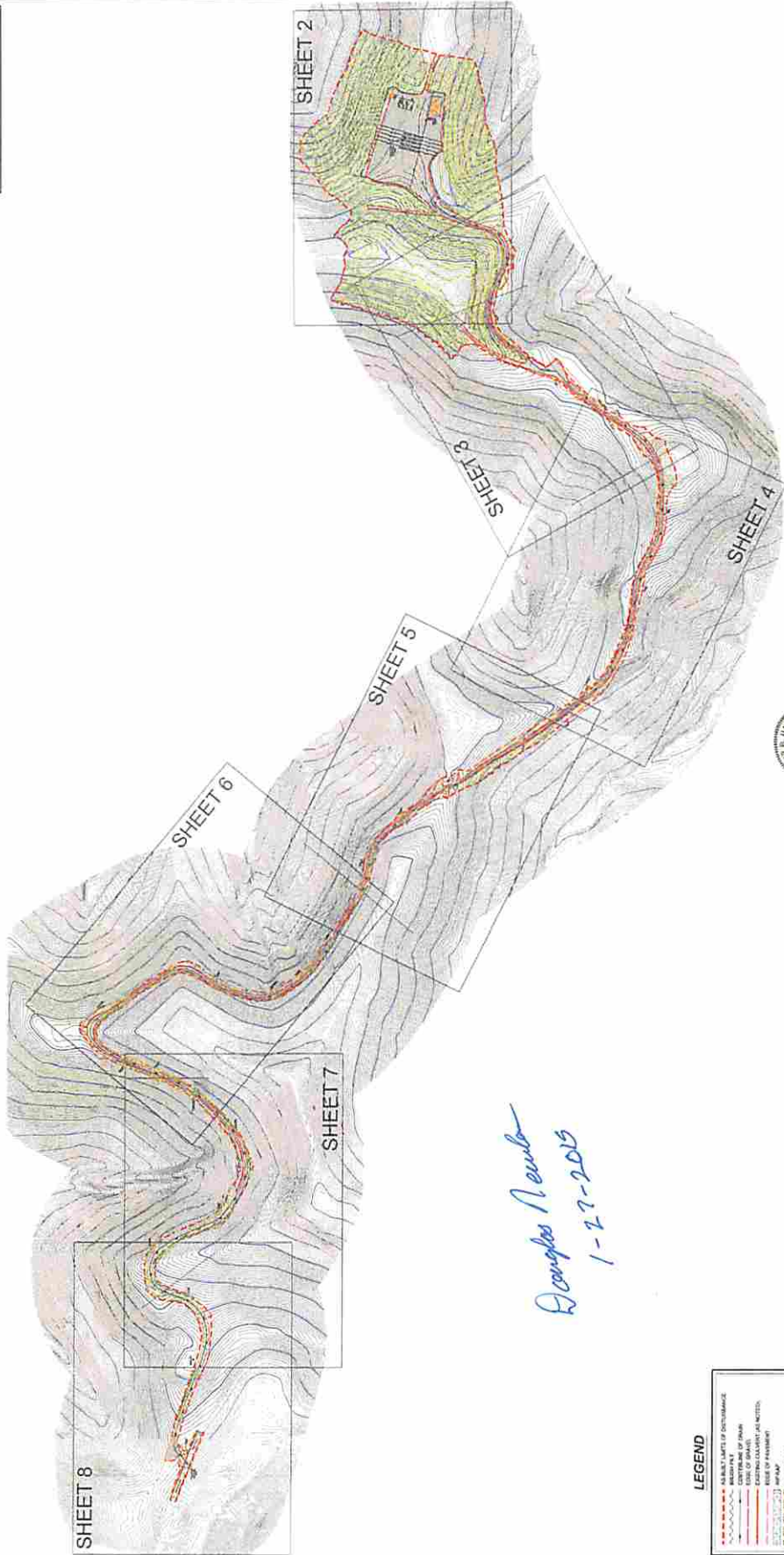
WELL-153 LOCATION COORDINATES

CENTER OF WELL PAD
LATITUDE: 35 190196 LONGITUDE: -80 817216 (NAD 83)
N: 433868.076 E: 512770.495 (UTM NAD 83 METERS)
ACCESS ROAD ENTRANCE
LATITUDE: 35 162463 LONGITUDE: -80 826569 (NAD 83)
N: 433817.479 E: 511111.655 (UTM NAD 83 METERS)

GRID NORTH AND
SOUTH COORDINATES
ESTABLISHED BY ECPIS
SURVEY DATA

SHEET INDEX

- 1 - COVER SHEET
- 2 - PAD AND ACCESS ROAD
- 3 - ACCESS ROAD
- 4 - ACCESS ROAD
- 5 - ACCESS ROAD
- 6 - ACCESS ROAD
- 7 - ACCESS ROAD
- 8 - ACCESS ROAD
- 9 - ACCESS ROAD PROFILE



*Douglas Newber
1-22-2015*



RECEIVED
Office of Oil and Gas

JAN 8 0 2015

WV Department of
Environmental Protection

LEGEND

- PROPERTY BOUNDARY
- EXISTING ROAD
- PROPOSED ROAD
- PROPOSED ACCESS ROAD
- PROPOSED PAD
- PROPOSED WELL LOCATIONS
- PROPOSED WELL PATTERNS
- PROPOSED WELL LOCATIONS
- PROPOSED WELL PATTERNS
- PROPOSED WELL LOCATIONS
- PROPOSED WELL PATTERNS
- PROPOSED WELL LOCATIONS

DATE: 1-8-15
SCALE: 1" = 200'
DESIGNED BY: DEB
FILE NO.: 052
SHEET 1 OF 9

OXF-153 SITE
AS-BUILT
THIS DOCUMENT IS THE PROPERTY OF
EQT PRODUCTION COMPANY, INC.
FOR 801
SOUTH FORK HUGHES RIVER
DODDRIDGE COUNTY, WEST VIRGINIA

Professional Energy Consultants
S. K. RYAN, P.E.
ENGINEERS
PROJECT MGMT.
401.422.0924
WWW.BUSINESS.COM

EQT
Where energy meets innovation.

EQT OXF 153 MODIFICATION SITE PLAN

EQT PRODUCTION COMPANY (PROPOSED WELL NO. WV515969 (H6), WV515970 (H7), WV516239 (H8), AND WV516251 (H9))

SITUATE ON THE WATERS OF UNNAMED TRIBUTARIES TO SOUTH FORK HUGHES RIVER; TRAP RUN, AND CHAPMAN RUN IN SOUTHWEST DISTRICT, DODDRIDGE COUNTY, WV

PROJECT INFORMATION

PROJECT NAME: EQT OXF 153
 TAX PARCEL: DISTRICT 1, DODDRIDGE COUNTY, WV
 TAX MAP: 10
 SURFACE OWNER: LL MORRIS

SOUTHWEST DISTRICT, WV
 TAX MAP: 10 PARCEL 2
 TOTAL PROPERTY AREA: 6,600.75 +/- ACRES
 TOTAL DISTURBANCE AREA: 18.6 +/- ACRES

OIL AND GAS NATALTY OWNER:
 W.M. HERB PROPERTIES, LLC (1.00 +/- ACRES)
 DODDRIDGE COUNTY, WV

SITE LOCATION: THE SITE ENTRANCE IS LOCATED 2.64 MI +/- NORTH OF THE JUNCTION OF CR 19 AND CR 32. THE WELL PAD IS LOCATED 4.1 MILES +/- NORTH OF THE SAME JUNCTION.

LOCATION COORDINATES

EQT OXF 153 WELL PAD CENTER
 LATITUDE: 39.19055 LONGITUDE: 80.81756 (NAD 83)
 EGT OXF 153 ACCESS ROAD AT CR 19
 LATITUDE: 39.19097 LONGITUDE: 80.81530 (NAD 83)
 EQT OXF 153 ACCESS ROAD AT CR 19
 LATITUDE: 39.19245 LONGITUDE: 80.81641 (NAD 83)

GENERAL DESCRIPTION

THE WELL PAD, ACCESS ROAD, AND CONDUIT RIG ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF FERTIGAN MARCELLUS SHALE GAS WELLS.

SITE DISTURBANCE COMPUTATIONS

WELL PAD CONDUIT RIG AREA = 11.9 +/- ACRES
 ACCESS ROAD = 6.7 +/- ACRES
 TOTAL SITE DISTURBANCE AREA = 18.6 +/- ACRES

ENTRANCE PERMIT

EQT PRODUCTION COMPANY WILL OBTAIN AN ENTRANCE PERMIT FROM MARIETTA 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 NOTED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET # 415592816. IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

ENVIRONMENTAL NOTES

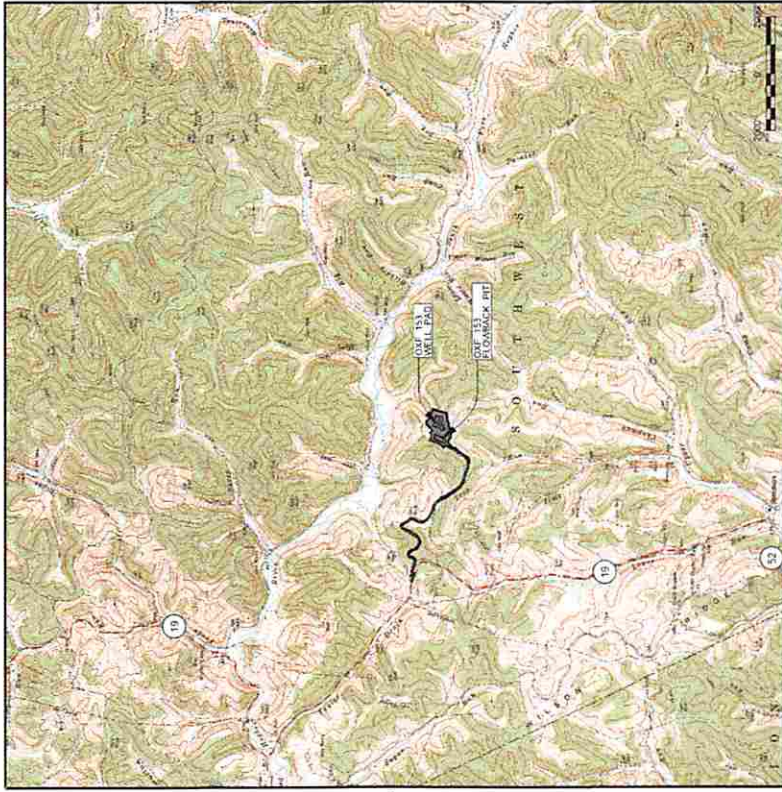
A WETLAND DELINEATION WAS PERFORMED BY POTLESTA & ASSOCIATES, INC. ON 1/26/2014 TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA). THE RESULTS OF THE FIELD DELINEATION, THE REPORT DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF THE INFORMATION PROVIDED. THE RESULTS OF THIS DELINEATION MAY BE SUPERSEDED BY THE USACE OR THE EPA. IT IS STRONGLY RECOMMENDED THAT THE AFORESAID AGENCIES BE CONSULTED IN AN EFFORT TO OBTAIN WRITTEN COMMENTARY OF THE DELINEATION DESCRIBED BY THIS REPORT. 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 FILL AND STRUAL CROSSINGS.

GEOTECHNICAL NOTES

THE WELL PAD AND CONDUIT RIG ARE NOT BEING CONSTRUCTED AS AN EARTH RETENTION STRUCTURE. THE ENGINEER AND SURVEYOR ARE NOT RESPONSIBLE FOR UNFORESEEN SUBSURFACE PRECONDITIONS CAUSING ADDITIONAL WORK OR ADDITIONAL CONSTRUCTION MEASURES REQUIRED BEYOND THOSE STANDARD PRACTICES SHOWN ON THIS PLAN AS A RESULT OF ANY OTHER GEOTECHNICAL CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

RESTRICTIONS NOTES

1. THERE ARE NO NATURAL TRAILERS, AERIAL, PERENNIAL, STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE PROJECT L.O.D. THERE ARE NO WETLANDS WITHIN 100 FEET OF THE L.O.D.
2. THERE ARE NO NATURALLY PRODUING TROUT STREAMS WITHIN 300 FEET OF THE PAD AND L.O.D.
3. THERE ARE NO UNDESIRABLE WATERS WITHIN 100 FEET OF THE PAD AND L.O.D.
4. THERE ARE NO UNDESIRABLE WATERS WITHIN 100 FEET OF THE WALLS DURING DRILLED, STAGNANT, AND SMITH LAND SURVEY WHO ARE NOT RESPONSIBLE FOR ANY EXISTING WATER WELL OR DEVELOPED SPRING DISCOVERED DURING CONSTRUCTION.
5. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,000 SQUARE FEET WITHIN 425 FEET OF THE CENTER OF THE PAD.
6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,000 SQUARE FEET WITHIN 425 FEET OF THE CENTER OF THE PAD.



MISS UTILITY OF WEST VIRGINIA
 111 ELKINS STREET
 FARMINGTON, WV 26030
 PHONE: (304) 381-6401
 WWW.MISSUTILITY.COM

APPROVED
WVDEP OOG

3.31.15

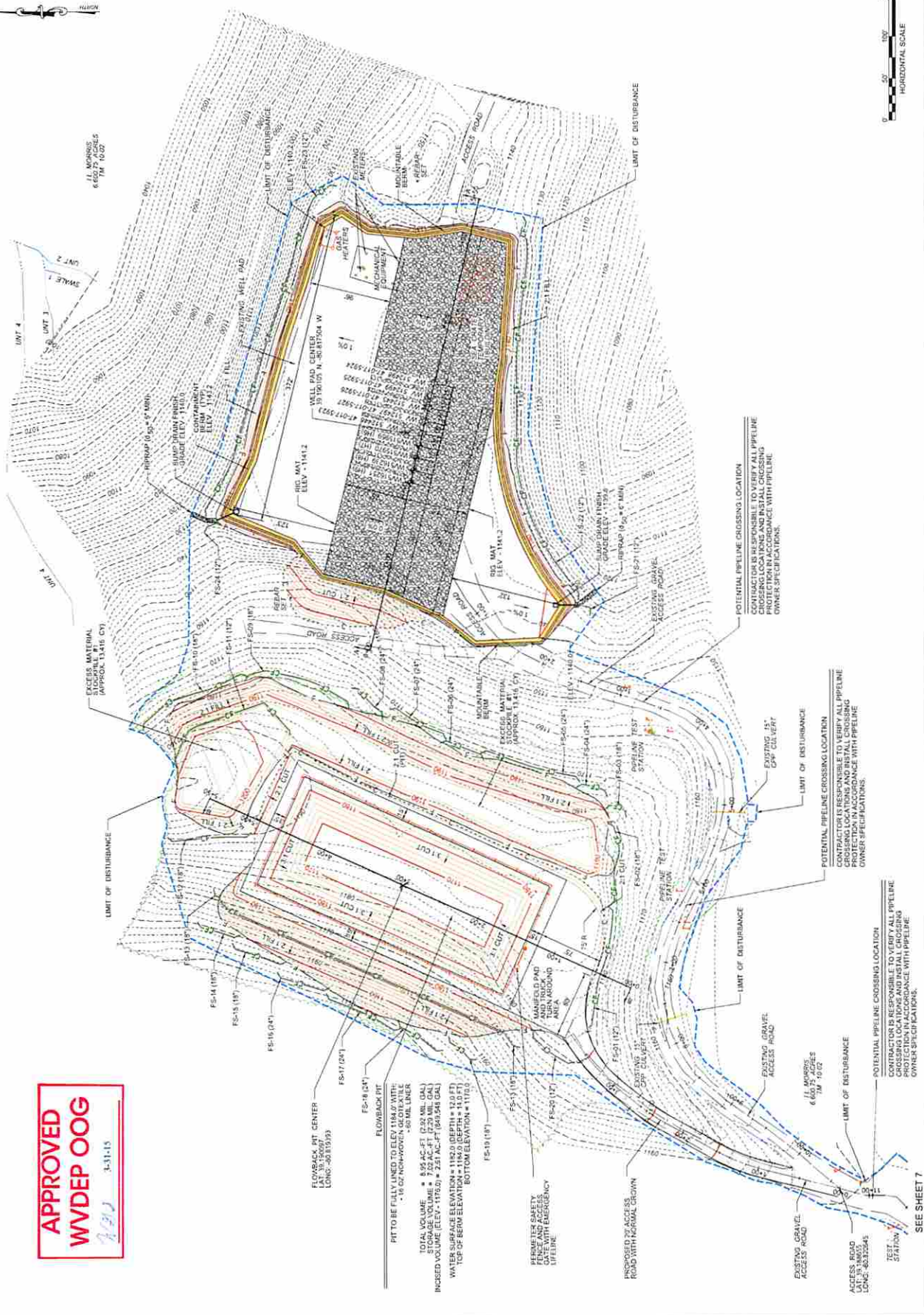


DODDRIDGE COUNTY, WV
 SOUTHWEST DISTRICT
OXF 153 MODIFICATION

DATE: 02/20/15
 SCALE: AS SHOWN
 DESIGNED BY: AMR
 FILE NO.: S.15291
 SHEET 1 OF 31
 REV: 02/20/15

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	OVERALL PLAN SHEET INH6
4-8	ACCESS ROAD AND WELL SITE LAYOUT
9-14	WELL PAD AND FLOWBACK PIT SECTIONS
15-17	ACCESS ROAD PROFILES
18-22	ACCESS ROAD SECTIONS AND TYPICAL SECTION
23-27	RECLAMATION PLAN
28-32	CONSTRUCTION DETAILS
33	CONSTRUCTION QUANTITIES

LEGEND	
EX. INTERMEDIATE CONTOUR	PROF. INDEX CONTOUR
EX. BOUNDARY LINE	PROF. INTERMEDIATE CONTOUR
EX. EDGE OF ROAD PAVEMENT	PROF. CUT LINE
EX. GUARDRAIL	PROF. FILL LINE
EX. FENCE LINE	PROF. LIMITS OF DISTURBANCE
EX. GATE	ENVIRONMENTAL ASSESSMENT AREA OF DELINEATION
EX. OVERHEAD UTILITY	PROF. WELL HEAD
EX. UTILITY POLE	PROF. CONTAINMENT BERM
EX. GUY WIRE	PROF. ROAD CENTERLINE
EX. TELEPHONE LINE	PROF. CHILVERT
EX. GAS LINE	PROF. RIP-RAP OUTLET PROTECTION
EX. WATERLINE	PROF. COMPOST FILTERCOCK
EX. WATER WELL	PROF. ROCK CONSTRUCTION ENTRANCE
EX. TRIRER LINE	A-SECTION GRID INDEX
EX. REFERENCE TREE	A-SECTION PROPOSED GRADE
EX. DELINEATED STREAM	A-SECTION EXISTING GRADE
EX. Delineated Wetland	PROF. PERMEATH SAFETY FENCE
EX. BUILDING	PROF. ACCESS GATE WITH EMERGENCY LIFELINE
EX. DITCH	



APPROVED
WVDEP OOG
 3-31-15

PIT TO BE FILL WITH 25% EXCESS MATERIAL TO BE COVERED WITH 1.0' OF NON-AGGREGATE GRANULAR FILL
 - 50' OIL LINER
 TOTAL VOLUME = 8.92 AC-FT (232,000 GAL)
 STORAGE VOLUME = 2.02 AC-FT (52,500 GAL)
 INCISED VOLUME (ELEV. 1102.0) = 2.51 AC-FT (62,750 GAL)
 WATER TO BE REMOVED = 1182.0 (DEPTH = 13.0 FT)
 BOTTOM ELEVATION = 1110.0

WATERMETER SAFETY FENCE AND ACCESS TURN AROUND UTILITY

IMPROVED BY ACCESS ROAD WITH NORMAL CROWN

EXISTING GRAVEL ACCESS ROAD
 666.75' X 25'5"

ACCESS ROAD
 666.75' X 25'5"
 LAT. 35.18000
 LONG. -83.32545

SEE SHEET 7

POTENTIAL PIPELINE CROSSING LOCATION
 CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PIPELINE CROSSING LOCATIONS AND INSTALL CROSSING PROTECTION IN ACCORDANCE WITH PIPELINE OWNER SPECIFICATIONS.

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 CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PIPELINE CROSSING LOCATIONS AND INSTALL CROSSING PROTECTION IN ACCORDANCE WITH PIPELINE OWNER SPECIFICATIONS.

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