



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

December 29, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-10303108, 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: 513866
Farm Name: EDGELL, KATHY S.
API Well Number: 47-10303108
Permit Type: Horizontal 6A Well
Date Issued: 12/29/2015

Promoting a healthy environment.

01/01/2016

PERMIT CONDITIONS 4710303108

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



west virginia department of environmental protection

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

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

December 1, 2015

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

4710303108.

RE: Application for Deep Well Permit – API #47-103-03108

COMPANY: EQT Production Company

FARM: Kathy Edgell WV 513866

COUNTY: Wetzel DISTRICT: Grant QUAD: Big Run

The deep well review of the application for the above company is **APPROVED TO BLACK RIVER.**

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

1. Comments to Notice of Deviation filed? YES, resolved in hearing Docket 231-221
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; na
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; none
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines
Environmental Resource Program Administrator

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 103 4 254
Operator ID County District Quadrangle

2) Operator's Well Number: 513866 Well Pad Name: BIG7

3) Farm Name/Surface Owner : Edgell Public Road Access: Route 15

4) Elevation, current ground: 924' Elevation, proposed post-construction: 924'

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

(b) If Gas: Shallow _____ Deep

Horizontal

6) Existing Pad? Yes or No: **yes**

PAH
12-22-15

7) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):

Target formation is Point Pleasant at a depth of 12382 with the anticipated thickness to be 102 feet and anticipated target pressure of 10296 PSI

8) Proposed Total Vertical Depth: 12633

9) Formation at Total Vertical Depth: Black River

10) Proposed Total Measured Depth: 15495

11) Proposed Horizontal Leg Length 2,777

12) Approximate Fresh Water Strata Depths: 298

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

14) Approximate Saltwater Depths: 1,987

15) Approximate Coal Seam Depths: 178, 538, 643, 1153, 1503, 1526

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? Yes _____ No

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

Depth: _____

Seam: _____

Owner: _____

WW - 6B
(3/13)

API NO. 47 - 103 - 05108
 OPERATOR WELL NO. 513866
 Well Pad Name: BIG7

CASING AND TUBING PROGRAM

18)

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill- up (Cu.Ft.)
Conductor	30	New	A500	118.76	60	60	130 C.T.S.
Fresh Water	18 5/8	New	J-55	87.5	398	398	927 C.T.S.
Coal	-	-	-	-	-	-	-
Intermediate	13 3/8	New	J-55	68	2,945	2,945	2,630 C.T.S.
Intermediate 2	9 5/8	New	HCP-110 EIP	47	11,357	11,357	2,013 C.T.S.
Production	5 1/2	New	HCP-110 EIP	23	15,495	15,495	See Note 1
Tubing							
Liners							

DWH 12-22-15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30	36	0.375	1,050	Construction	-
Fresh Water	18 5/8	24	0.435	2,250	* See Note 2	1.19
Coal						
Intermediate	13 3/8	17 1/2	0.48	3,450	* See Note 2	1.18
Intermediate 2	9 5/8	12 3/8	0.472	11,000		1.66/1.22
Production	5 1/2	8 1/2	0.415	16,508	-	1.57
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 500' above the top producing zone.

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

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

Drill a vertical well down to an approximate depth of 12.633'.(200' below top of Trenton)

Plug back vertical portion of wellbore with a solid cement plug to approximately 11618'

Then drill curve and land in point pleasant formation. Drill lateral in Point Pleasant.

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 "stickwater" completion. Maximum anticipated internal casing pressure is 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):

no additional disturbance

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

no additional disturbance

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

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.

0.25% flake. Loss Circulation Material (LCM) is used to combat the loss of the cement slurry to a thief zone.

Intermediate 1 (Class A Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement slurries. 0.25% flake. Loss Circulation Material (LCM) is used to combat the loss of whole drilling fluid or cement slurry (not filtrate) to a thief zone. Intermediate 2 (Class H Cement): 0-10% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement. .2% CJ210 (lengthen thickening time) .2% CJ402 (dispersant makes cement easier to mix) .5% CJ500 (Fluid loss) .2% CJ710 (Anti-foam)

Production (Type H Cement): 0-20% Dispersant (makes cement easier to mix). 0-1% Fluid loss 0-1% Expansive Additive.

0-1% Retarder (Lengthens thickening time) 0-1% Suspending Agent 0-1% Retarder (Legthens thickening time)

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. 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. Intermediate: Circulate hole clean

by pumping 1-3 bottoms up or until shakers are clean. Pump marker sweep with nut plug to determine actual hole washout. Check volume of cuttings

coming across the shakers every 15 minutes.

Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume.

Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across

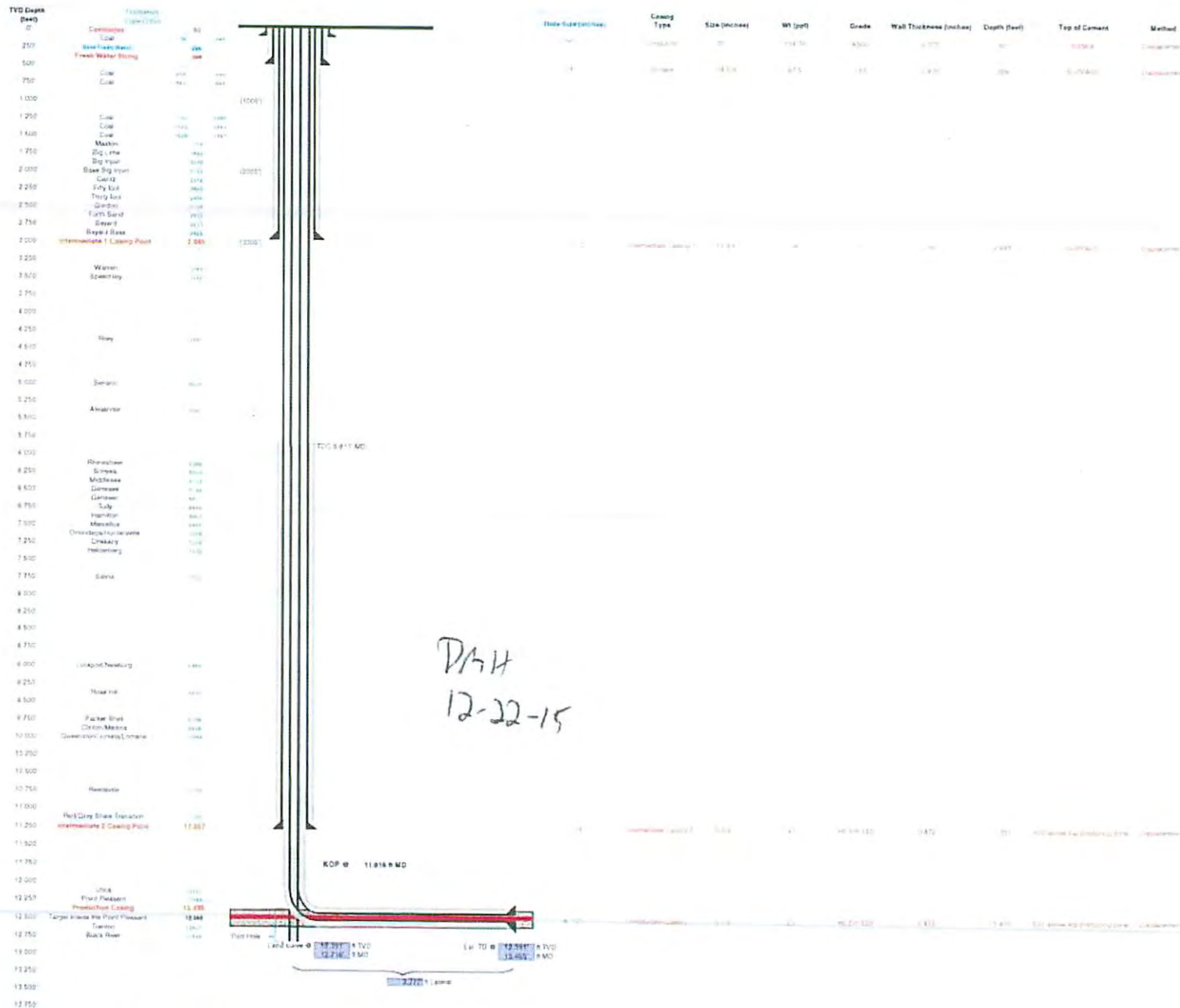
the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

*DMH
12-22-15*

Well **513066** (D-GF-H3)
 LGF Production
 Wetzel County West Virginia

Annals **9011**
 Vertical Section **1219**



Proposed Well Work
 Drill a vertical well down to an approximate depth of 12,000 (200' below top of Territory)
 Plug back to top of zone to seal off well and cement plug to approximately 11,250'
 Then drill down well and to (200' present formation) - Oil zone of Pure Present

4710303108



December 18, 2015

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

Re: Casing on Wells (BIG7 – Utica Wells)

Dear Mr. Smith,

EQT is requesting the 18 5/8" surface casing be set at 398' KB, 100' below the deepest fresh water at 298'. We will set the 13 3/8" intermediate one string at 2945' KB, below the porosity zone in the Bayard formation. We will set the 9 5/8" deep intermediate two string at 11,357' KB, 200' below the red/grey transition in the Reedsville. Cement on the 18-5/8" surface and 13-3/8" intermediate one strings will be circulated to surface. Cement on the deep 9-5/8" intermediate two string will be brought to 500' above the shallowest oil or gas bearing zone to approximately 5811'.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark', is written over a light blue horizontal line.

Vicki Roark
Permitting Supervisor

Enc.



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25301
(304) 926-0450
(304) 926-0452 fax

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

March 18, 2014

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

Re: Cement Variance Request

Dear Sir or Madam,

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

- Type I (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "I" 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 blue ink that reads "James Peterson" followed by a stylized monogram "JPS".

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

01/01/2016



west virginia department of environmental protection

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

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

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

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

REPORT OF THE OFFICE

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

FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
 - 2% Calcium Chloride (Accelerator)
 - 0.25 % Super Flake (Lost Circulation)
 - 94% Type "I" 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.

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

WW-9
(5/13)

Page 1 of 2
API No. 47 - 103 - 03108
Operator's Well No. 513866

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) Sheep Run and North Fork Fishing Creek Quadrangle Big Run
Elevation 924' County Wetzel District Grant

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes x No

Will a pit be used? Yes: No: X

If so please describe anticipated pit waste:

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

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)

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 Synthetic mud

Additives to be used in drilling medium?
Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud - Bante, viscosifier, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates.
Oil based mud - synthetic base oil, emulsifier, salt, lime, viscosifier, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

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.

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

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

Subscribed and sworn before me this 17th day of December, 20 15

Rebecca J. Wanstreet Notary Public

My commission expires 4-7-20



DmH
12-22-15

WW-9

Operator's Well No. 513866

Proposed Revegetation Treatment: Acres Disturbed n/a Prevegetation pH 6.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilize type Granular 10-20-20

Fertilizer Amount 1/3 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: [Signature]

Comments: _____

Title: OIL + Gas Inspector Date: 4-6-15

Field Reviewed? (/) Yes () No

RECEIVED
Office of Oil and Gas
APR 09 2015
WV Department of
Environmental Protection



November 19, 2015

Cindy Raines
WV Dept. of Environmental Protection
Division of Oil and Gas
601 57th St East
Charleston, WV 25304

4710303108

Cindy,

Please find attached a page 2 plat for the BIG7 513886 well showing the tick mark for the top and bottom holes per your request.

If you have any questions, please contact me at 304.848.0076

Sincerely,

Vicki Roark
Permitting Supervisor - WV

Enc.



4710303108

Where energy meets innovation.™

Site Specific Safety Plan

EQT BIG 7 Pad

Pine Grove

Wetzel County, WV

513866

For Wells:

Date Prepared: March 26, 2015

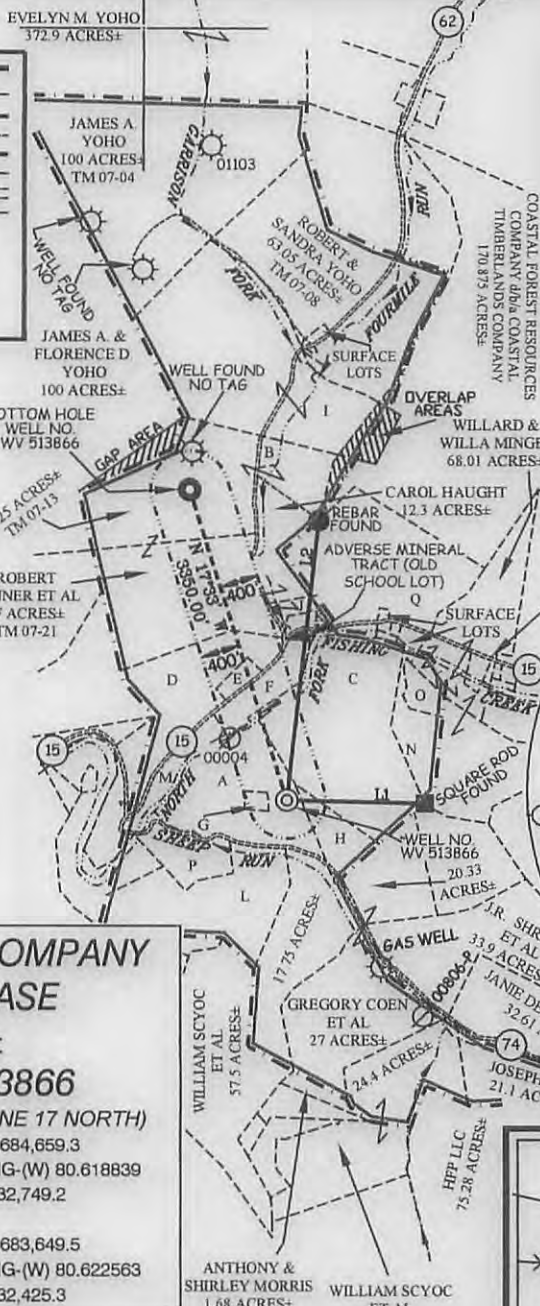
Date Reviewed: December 17, 2015

[Signature]
EQT Production
Permitting Supervisor
Title
12-17-15
Date

[Signature]
WV Oil and Gas Inspector
Oil + Gas Inspector
Title
12-22-15
Date

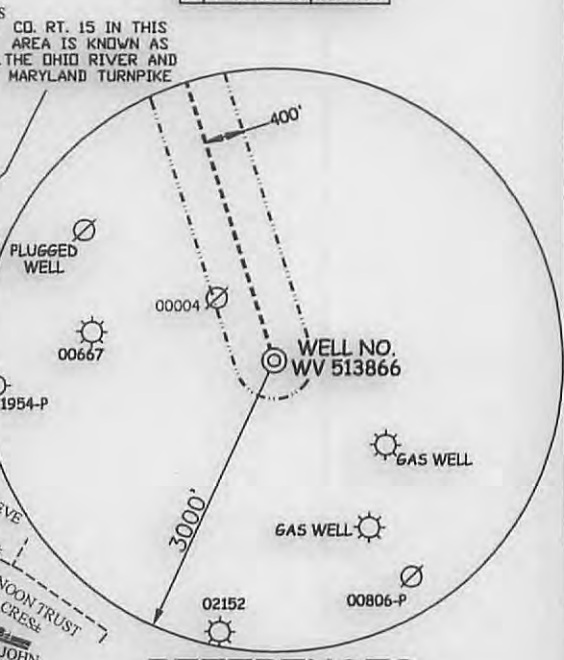
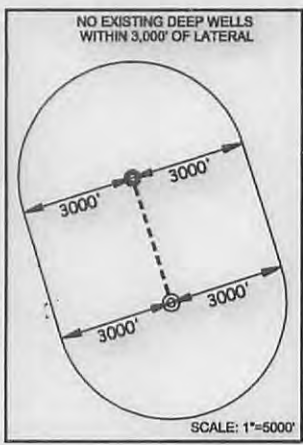
LEGEND

LEASE LINE	---
SURFACE LINE	---
WELL LATERAL	---
OFFSET LINE	---
TIE LINE	---
CREEK	---
ROAD	---
FENCE LINE	---
COUNTY ROUTE	---
PROPOSED WELL	⊙
EXISTING WELL	⊙
PERMITTED WELL	⊙
TAX MAP--PARCEL	TM 00-00



A	KATHY S. EDGELL	30 ACRES±	TM 07-39
B	STANLEY E. & KATHELEEN DULANEY	1 ACRE±	
C	ROBERT E. & MARY C. WILDMAN	70.4 ACRES±	
D	ROBERT & MICHELLE FONNER	16.35 ACRES±	TM 07-37
E	DONALD & MARY DENNISON	1.99 ACRES±	TM 07-37.1
F	DELORES F. BLAKE	8.7 ACRES±	TM 07-37.2
G	SHREVE CEMETERY	1 ACRE±	TM 07-40
H	DONALD W. & WILLIAM E. DENNISON	7.8 ACRES±	
I	BEVERLY L. & WILLIAM J. BARR	65 ACRES±	TM 07-07
J	DONALD I. DENNISON	1.7 ACRES±	
K	DELORES F. BLAKE	2.29 ACRES±	
L	WILLIAM F. SCYOC ET AL	25 ACRES±	
M	WILLIAM J. & KAREN R. FOTOVICH	6.46 ACRES±	
N	WALTER V. BICKERSTAFF ET AL	7.6 ACRES±	
O	WALTER V. BICKERSTAFF ET AL	2.3 ACRES±	
P	GREGORY COEN	11.3 ACRES±	
Q	JOHN & DEBRA KOCHER	38.83 ACRES±	

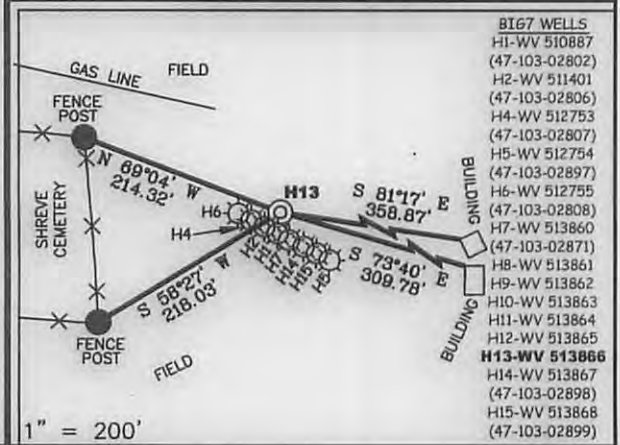
11	S 88°44' E	1427.74'
12	N 08°24' E	2894.97'



**EQT PRODUCTION COMPANY
J.R. SHREVE LEASE
630 ACRES±
WELL NO. WV 513866**

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'27 S.P.C.(FT) N. 396,125.0 E. 1,684,659.3
 NAD'27 GEO. LAT-(N) 39.582203 LONG-(W) 80.618839
 NAD'83 UTM (M) N. 4,381,466.0 E. 532,749.2
BOTTOM HOLE
 NAD'27 S.P.C.(FT) N. 399,319.1 E. 1,683,649.5
 NAD'27 GEO. LAT-(N) 39.590937 LONG-(W) 80.622563
 NAD'83 UTM (M) N. 4,382,434.0 E. 532,425.3

REFERENCES



NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO DWELLINGS WERE FOUND WITHIN 825' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCE BOX FOR BUILDING WITH 825' OF PROPOSED WELL.

Professional Energy Consultants
 A DIVISION OF SMITH LAND SURVEYING, INC.
SLS SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.
 (204) 462-6634 WWW.SLSURVEYS.COM

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JANUARY 26, 20 15
 REVISED MARCH 23, 20 15
 OPERATORS WELL NO. WV 513866
 API WELL NO. 47 - 103 - 03108 H6A
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 6246P513866
 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 924'(PAD ELEVATION) WATERSHED SHEEP RUN AND NORTH FORK FISHING CREEK
 DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'

SURFACE OWNER KATHY S. EDGELL ACREAGE 30±
 ROYALTY OWNER NANCY & JOHN FOUT ET AL ACREAGE 630± LEASE NO. 300648

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 POINT PLEASANT
 ESTIMATED DEPTH TVD 12,683'

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

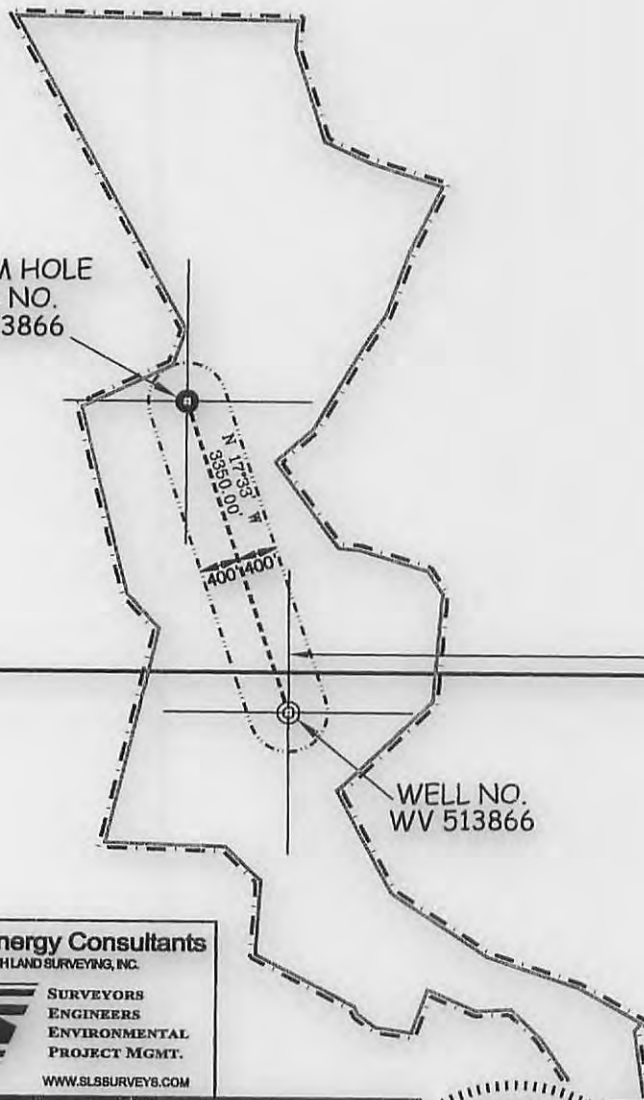
01/01/2016

EQT PRODUCTION COMPANY - J.R. SHREVE LEASE 630 ACRES ± -WELL NO. WV 513866

NAD'27 GRID NORTH

LONGITUDE 80°35'00"

BOTTOM HOLE
WELL NO.
WV 513866



10,007'

LATITUDE 39°35'00"

LONGITUDE 80°35'00"

BIG RUN 7.5' QUADRANGLE

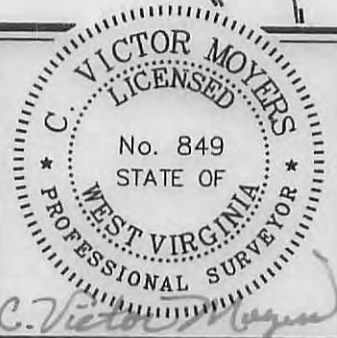
Professional Energy Consultants
A DIVISION OF SMITHLAND SURVEYING, INC.



**SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.**




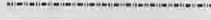

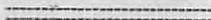








(304) 462-5634 WWW.SLSURVEYS.COM

<i>(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)</i>		
NAD'27 S.P.C.(FT)	N. 396,125.0	E. 1,684,659.3
NAD'27 GEO.	LAT-(N) 39.582203	LONG-(W) 80.618839
NAD'83 UTM (M)	N. 4,381,466.0	E. 532,749.2
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 399,319.1	E. 1,683,649.5
NAD'27 GEO.	LAT-(N) 39.590937	LONG-(W) 80.622563
NAD'83 UTM (M)	N. 4,382,434.0	E. 532,425.3



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

LEGEND

- LEASE LINE 
- SURFACE LINE 
- WELL LATERAL 
- OFFSET LINE 
- TIE LINE 
- CREEK 
- ROAD 
- FENCE LINE 
- STATE ROUTE 
- COUNTY ROUTE 
- PROPOSED WELL 
- EXISTING WELL 
- PERMITTED WELL 
- TAX MAP-PARCEL  00-00

SCALE 1" = 2000'

DATE NOVEMBER 18, 2015


REVISED _____, 20____

OPERATORS WELL NO. WV 513866

API WELL NO. 47 — 162 — 0310846A

STATE COUNTY PERMIT

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



COUNTY NAME _____

PERMIT _____

01/01/2016

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

**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
300648			Min 1/8 pd	
	J. R. Shreve and Nancy Shreve - Lease 1	South Penn Oil Company		DB46/240
	J. R. Shreve and Nancy Shreve - Lease 2	South Penn Oil Company		DB61/552
	South Penn Oil Company	Hope Natural Gas Company		LB9A/230
	Hope Natural Gas Company	Consolidated Gas Supply Corp.		DB233/387
	Consolidated Gas Supply Corp.	Consolidated Gas Transmission Corp.		DB66A/69
	Consolidated Gas Transmission Corp.	CNG Transmission Corp.		WV Sec of State Name Chg
	CNG Transmission Corp.	Eastern States Oil & Gas, Inc.		LB76A/232
	Eastern States Oil & Gas, Inc.	Blazer Energy Corp.		CB12/253
	Blazer Energy Corp.	Eastern States Oil & Gas, Inc.		CB12/259
	Eastern States Oil & Gas Company	Equitable Production - Eastern States Oil & Gas		CB13/14
	Equitable Production - Eastern States Oil & Gas	Equitable Production Co.		CB13/14
	Equitable Production Co.	EQT Production Company		CB13/14

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.

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

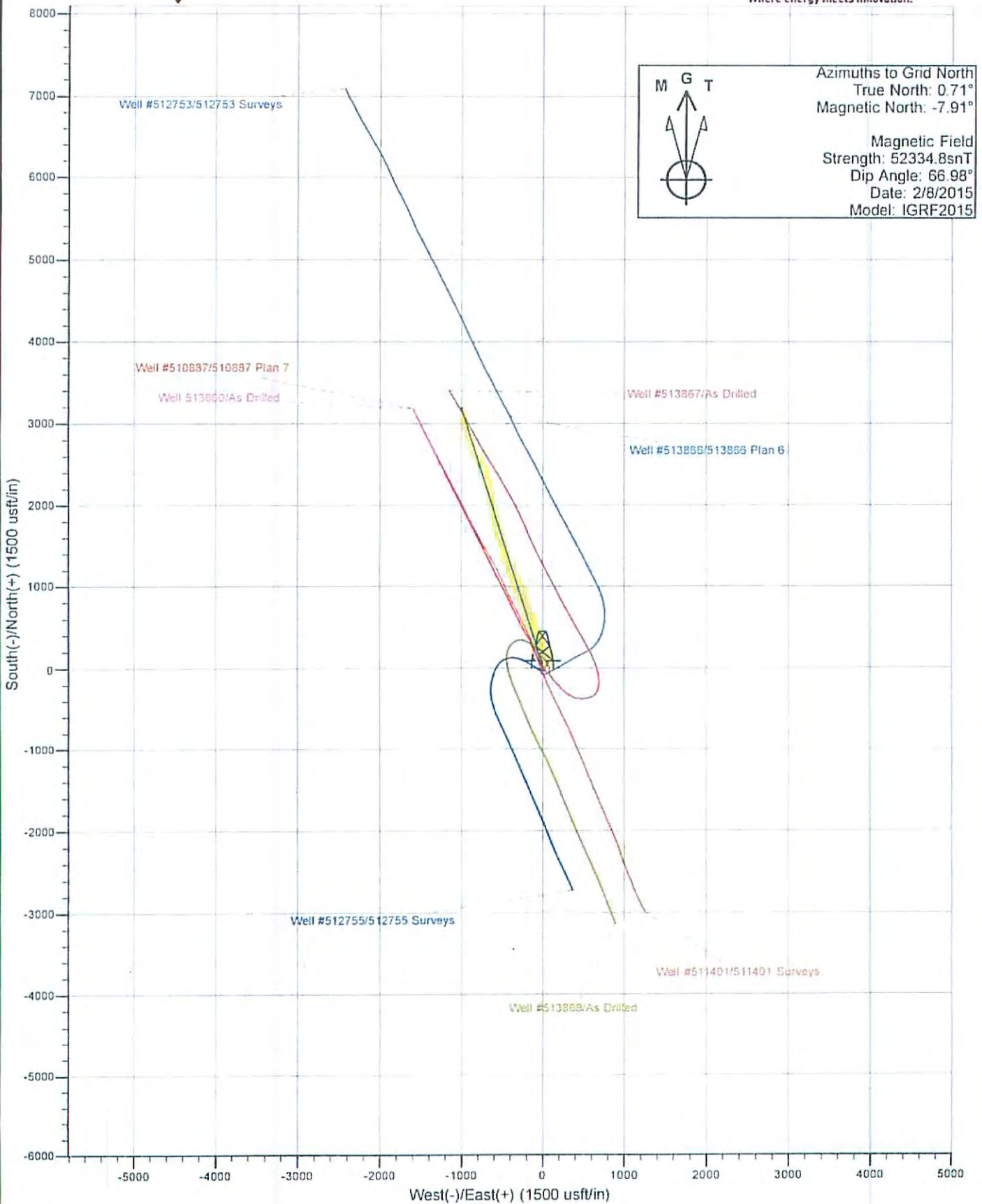
The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- 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

4710303108
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Office of Oil & Gas
MAR 30 2015

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: [Signature]
Its: Permitting Supervisor



4710303108

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

4710303108

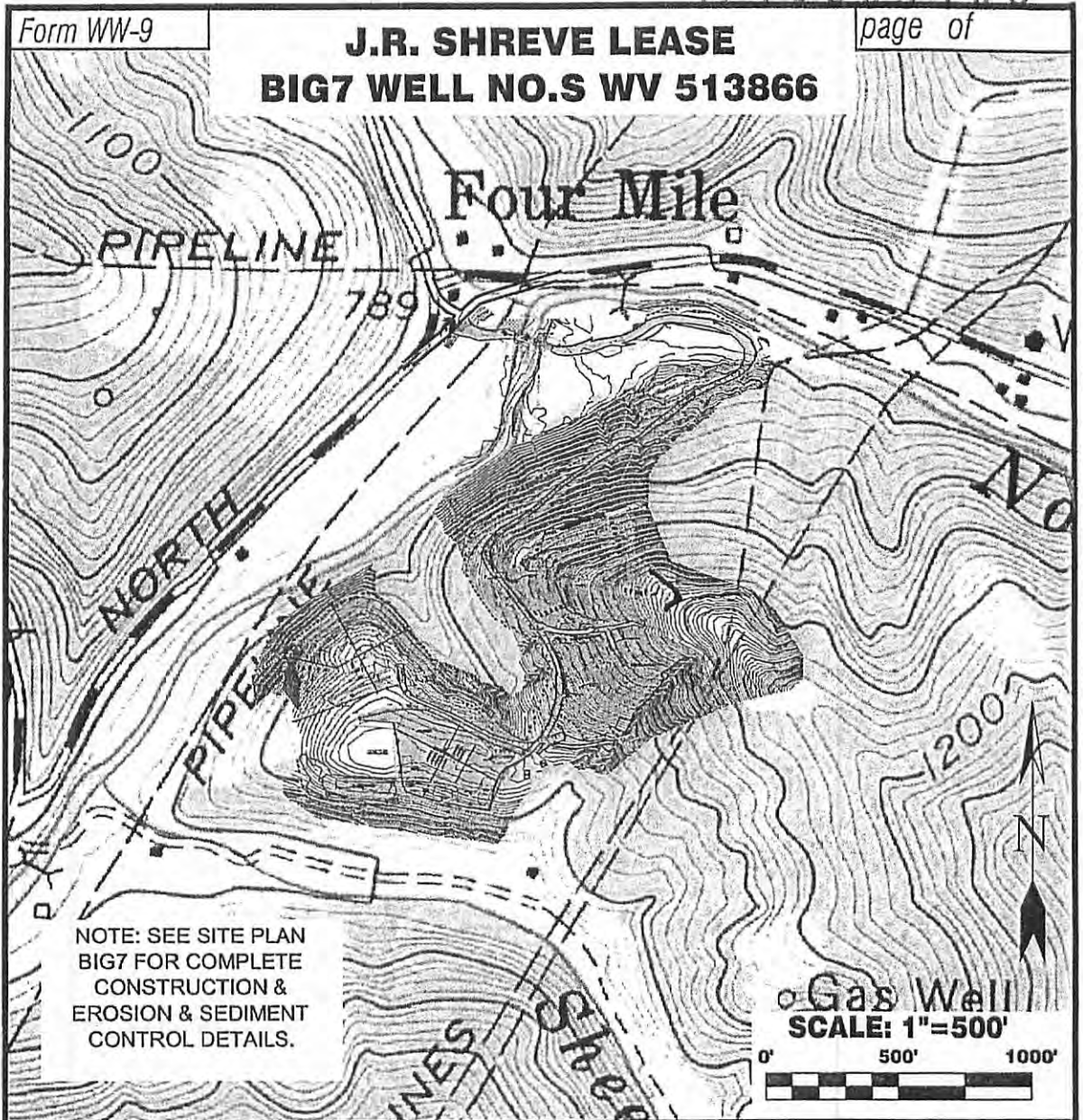
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4-6-15

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Office of Oil and Gas

APR 09 2015

WV Department of
Environmental Protection
01/01/2016

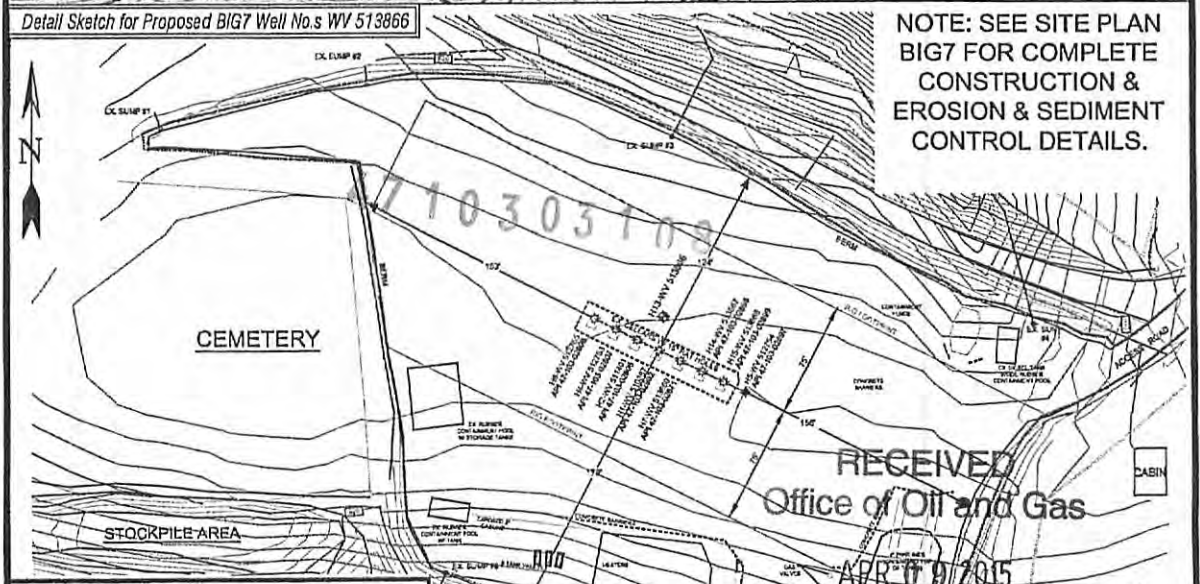
J.R. SHREVE LEASE BIG7 WELL NO.S WV 513866



NOTE: SEE SITE PLAN
BIG7 FOR COMPLETE
CONSTRUCTION &
EROSION & SEDIMENT
CONTROL DETAILS.

NOTE: SEE SITE PLAN
BIG7 FOR COMPLETE
CONSTRUCTION &
EROSION & SEDIMENT
CONTROL DETAILS.

Detail Sketch for Proposed BIG7 Well No.s WV 513866



DMH
4-6-15

Professional Energy Consultants
A DIVISION OF SMITHLAND SURVEYING, INC.
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.
1336 492-5534
WWW.SLSURV.COM

DRAWN BY K.D.W.	FILE NO. 6246	DATE 03-11-15	CADD FILE: 6246RECPLAN.dwg
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TOPO SECTIONS OF BIG RUN 7.5
TOPO QUADRANGLE

01/01/2016
Not To Scale

4710303108

WATER SOURCE LOCATIONS FOR J.R. SHREVE LEASE BIG7 WELLS



LEGEND

- WATER WELL
- CISTERN/SRING

RECEIVED
Office of Oil and Gas

SCALE: 1-INCH=1000-FEET *Drawn 4-6-15*

0' 1000' 2000' 3000'

Professional Energy Consultants
A DIVISION OF S&S-JAC SURVEYING INC.

S&S SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MANAGERS

2020 04 06 08 0000 04.04.15 11.15 AM

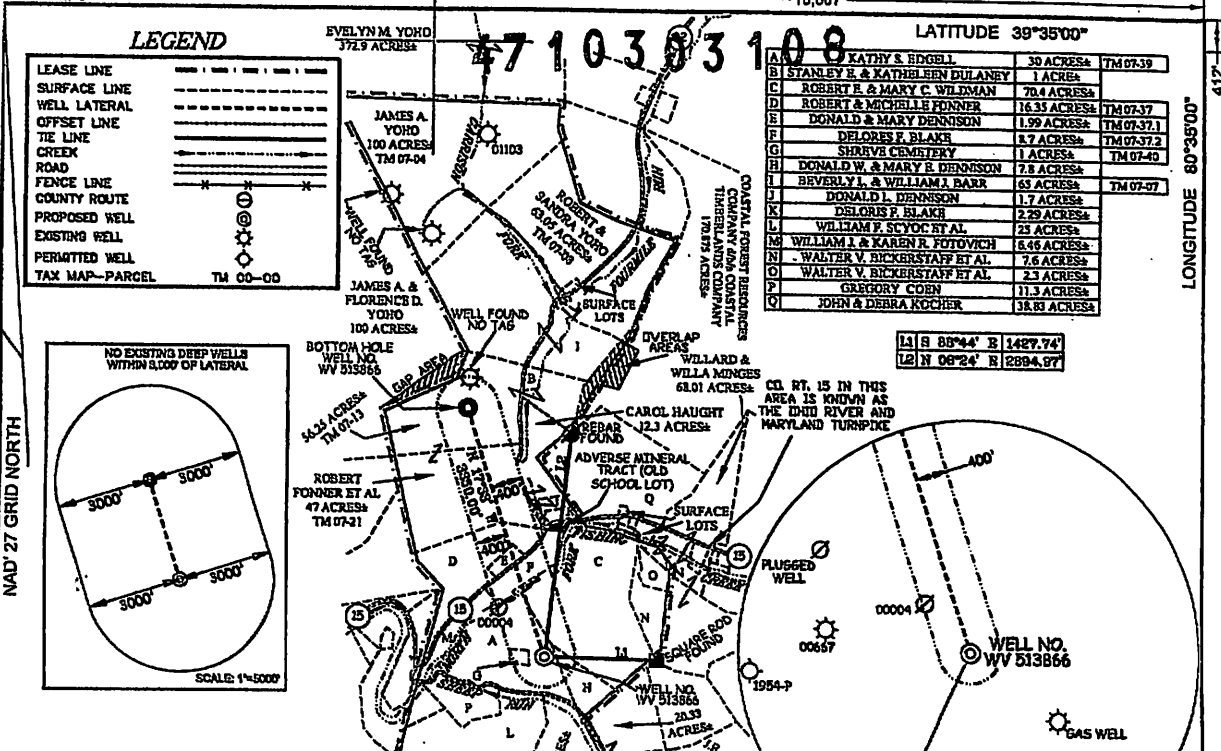
DRAWN BY: K.O.W. FILE NO: 8246 DATE: 03/25/15 CADD FILE: 8246032515.dwg

TOPO SECTION OF:
BIG RUN, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
GRANT	WETZEL	07-39

OPERATOR:
EQT PRODUCTION COMPANY
115 PROFESSIONAL PLACE
P.O. BOX 280
BRIDGEPORT, WV 26305
Department of Environmental Protection

01/01/2016



EQT PRODUCTION COMPANY
J.R. SHREVE LEASE
630 ACRES±
WELL NO. WV 513866
 (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD27 S.P.C.(FT) N. 398,125.0 E. 1,684,659.3
 NAD27 GEO. LAT-(N) 39.582209 LONG-(W) 80.618839
 NAD83 UTM (M) N. 4,981,468.0 E. 532,748.2

BOTTOM HOLE

NAD27 S.P.C.(FT) N. 399,319.1 E. 1,663,649.5
 NAD27 GEO. LAT-(N) 39.590897 LONG-(W) 80.622589
 NAD83 UTM (M) N. 4,982,434.0 E. 532,425.3

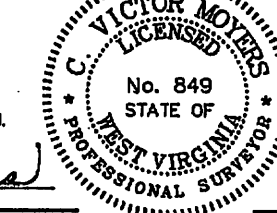
omit 4-6-15

NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCE BOX FOR BUILDING WITH 625' OF PROPOSED WELL.

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. *C. Victor Moyers*
 849



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

DATE JANUARY 26, 20 15

REVISED MARCH 23, 20 15

OPERATORS WELL NO. WV 513866

API WELL NO. 47

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6246P513866

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 X LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION X STORAGE DEEP X SHALLOW

LOCATION: ELEVATION 924'(PAD ELEVATION) WATERSHED SHEEP RUN AND NORTH FORK FISHING CREEK

DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5

SURFACE OWNER KATHY S. EDGELL

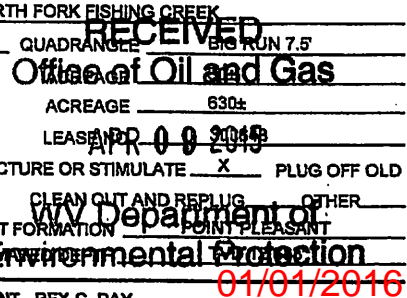
ROYALTY OWNER NANCY & JOHN FOUT ET AL. ACREAGE 630±

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

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION POINT PLEASANT

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



01/01/2016

47 10303108

icipated 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

DmH
4-6-15

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Office of Oil and Gas

APR 09 2015

WV Department of
Environmental Protection
01/01/2016

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

Date of Notice Certification: MAR 27 2015

API No. 47 - 103 - 0
Operator's Well No. 513866
Well Pad Name: BIG7

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>47 103 031 0</u> <u>532,749.20</u>
County:	<u>Wetzel</u>	UTM NAD 83 Northing:	<u>4,381,466.00</u>
District:	<u>Grant</u>	Public Road Access:	<u>Route 15</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:	<u>Edgell</u>
Watershed:	<u>Sheep Run and North Fork Fishing Creek</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.

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

*PLEASE CHECK ALL THAT APPLY

- NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- NOTICE OF INTENT TO DRILL or NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED OR
- WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- NOTICE OF PLANNED OPERATION
- PUBLIC NOTICE
- NOTICE OF APPLICATION

Received
Office of Oil & Gas
MAR 30 2015

OOG OFFICE USE ONLY

- RECEIVED/NOT REQUIRED
- RECEIVED
- RECEIVED/NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

Required Attachments:

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

01/01/2016

Certification of Notice is hereby given:

THEREFORE, I *Victoria J. Roark*, 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 27 day of March, 2014

Mark R. Neeley Notary Public

My Commission Expires August 24, 2022

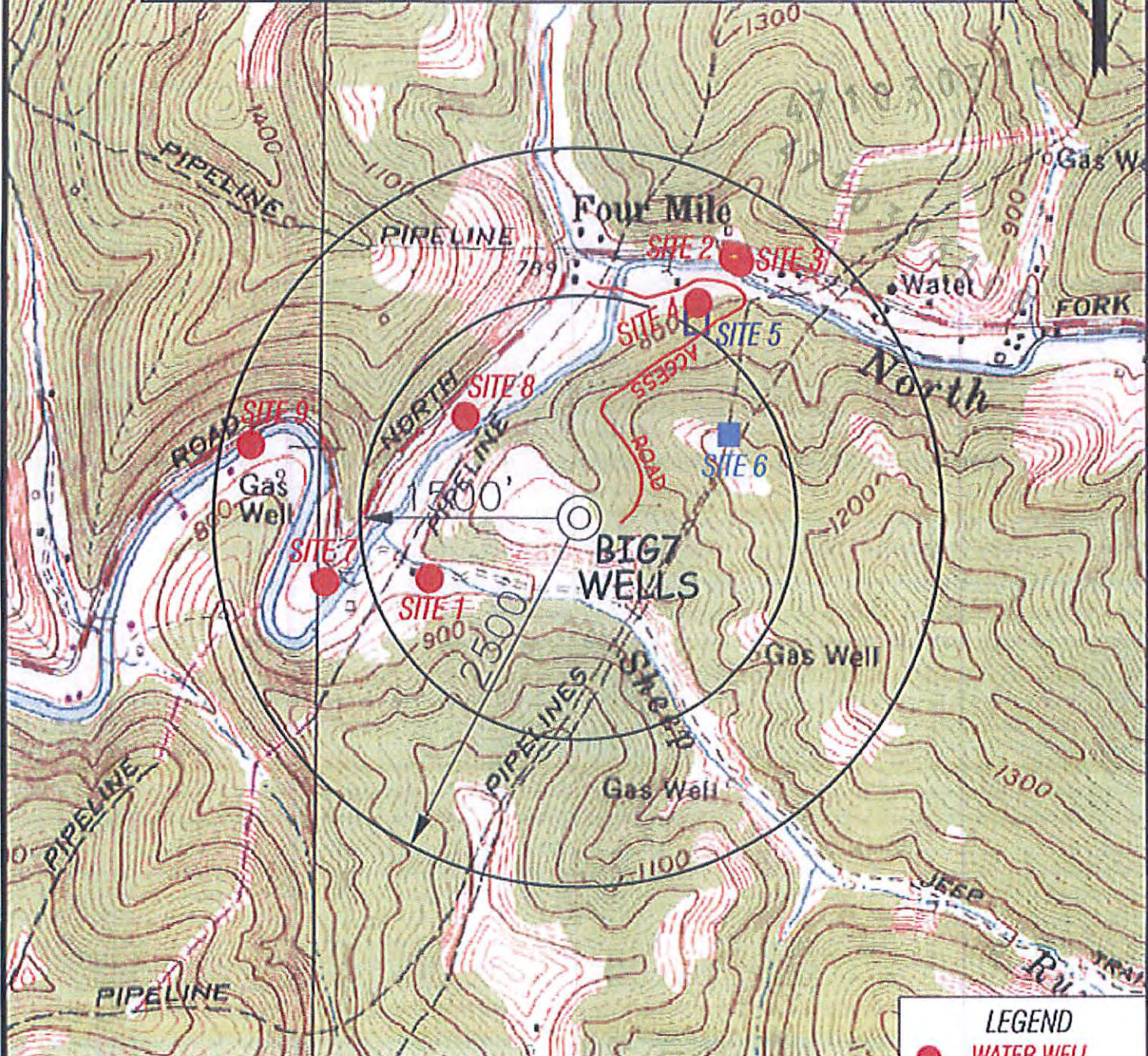
Oil and Gas Privacy Notice:

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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Received
Office of Oil & Gas
MAR 30 2015

WATER SOURCE LOCATIONS FOR J.R. SHREVE LEASE BIG7 WELLS



LEGEND

- WATER WELL
- CISTERN/SPRING
- POND

SCALE: 1-INCH = 1000-FEET

0' 1000' 2000'

Professional Energy Consultants
A DIVISION OF SETH JACO SURVEYING INC.

SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

306 W 82 S 404
4100 SLS-PL-1'S CON

DRAWN BY: K.D.W. FILE NO: 6246 DATE: 03/25/15 CADD FILE: 8245092705.dwg

TOPO SECTION OF:
BIG RUN, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
GRANT	WETZEL	07-39

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



WELL INFORMATION AND POTENTIAL WATER WELL SAMPLE DATA SHEET

OPERATOR: EQT Production Company
LEASE NAME AND NUMBER: BIG-7 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 1110' Owner/Occupant: Gregory Coen
Address: 5477 N. fork Rd. Pine Grove, WV 26419 Ph: (304)-889-3408
Field Contact Date: 03/12/2014 Located: Yes Date Located: 03/12/2015 Source: Water Well
If No, declined by who Letter/Notice Date: 1st 03/12/2015 2nd N/A Certified (3rd) 3/13/2015
Comments: Tax Map 12, Parcels 4, 4.1 and 6.1
Lat: 39.581138
Long: 80.622288

Site: 2 Spacing 2060' Owner/Occupant: Lester Bickerstaff
Address: HC 62 Box 50 Pine Grove, WV 26419 Ph: (304)-889-2341
Field Contact Date: 03/17/2015 Located: Yes Date Located: 03/17/2015 Source: Water Well
If No, declined by who Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcels 25 and 26
Lat: 39.587164
Long: 80.614977

Site: 3 Spacing 2060' Owner/Occupant: Lester Bickerstaff
Address: HC 62 Box 50 Pine Grove, WV 26419 Ph: (304)-889-2341
Field Contact Date: 03/17/2015 Located: Yes Date Located: 03/17/2015 Source: Water Well
If No, declined by who Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcels 25 and 26
Lat: 39.587079
Long: 80.614762

Site: 4 Spacing 1670' Owner/Occupant: Robert Wildman
Address: 6642 North Fork Rd. Pine Grove, WV 26419 Ph: (304)-889-2070
Field Contact Date: 03/18/2015 Located: Yes Date Located: 03/18/2015 Source: Water Well
If No, declined by who Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcel 41
Lat: 39.586311
Long: 80.615824

Received
Office of Oil & Gas
MAR 30 2015

Site: 5 Spacing 1550' Owner/Occupant: Robert Wildman
Address: 6642 North Fork Rd. Pine Grove, WV 26419 Ph: (304)-889-2070
Field Contact Date: 03/18/2015 Located: Yes Date Located: 03/18/2015 Source: Spring
If No, declined by who _____ Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcel 41
Lat: 39.585951
Long: 80.615856

Site: 6 Spacing 1180' Owner/Occupant: Robert Wildman
Address: 6642 North Fork Rd. Pine Grove, WV 26419 Ph: (304)-889-2070
Field Contact Date: 03/18/2015 Located: Yes Date Located: 03/18/2015 Source: Pond
If No, declined by who _____ Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcel 41
Lat: 39.583864
Long: 80.615012

Site: 7 Spacing 1800' Owner/Occupant: Karen Fotovich
Address: P.O. Box 465 Pine Grove, WV 26419 Ph: (304)-889-2863
Field Contact Date: 03/24/2015 Located: Yes Date Located: 03/24/2015 Source: Water Well
If No, declined by who _____ Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcel 55 *NOTE* this water well has no cap above ground but pump is in basement.
Lat: 39.581046
Long: 80.624820

Site: 8 Spacing 1045' Owner/Occupant: Karen Fotovich
Address: P.O. Box 465 Pine Grove, WV 26419 Ph: (304)-889-2863
Field Contact Date: 03/24/2015 Located: Yes Date Located: 03/24/2015 Source: Water Well
If No, declined by who _____ Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcel 55
Lat: 39.584153
Long: 80.621464

Site: 9 Spacing 2305' Owner/Occupant: John Titus in care of Shelby Titus
Address: 5806 N. fork Rd. Pine Grove, WV 26419 Ph: (304)-889-2621
Field Contact Date: 03/24/2015 Located: Yes Date Located: 03/24/2015 Source: Water Well
If No, declined by who _____ Letter/Notice Date: 1st 03/12/2015 2nd 03/17/2015 Certified (3rd) 3/13/2015
Comments: Tax Map 7, Parcels 35.1 and 35.2
Lat: 39.583571
Long: 80.626660

Site: 10 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: _____

Received
Office of Oil & Gas
MAR 30 2015

WW-6A
(9-13)

API NO. 47 - 103 - 0
OPERATOR WELL NO. 513866
Well Pad Name: BIG7

**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: _____ Date Permit Application Filed: MAR 27 2015

Notice of: MAR 27 2015

4710303108

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

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

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for 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.

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

SURFACE OWNER(s)
 Name: Kathy S. Edgell
 Address: 6251 Willey Fork Road
Burton, WV 26562

COAL OWNER OR LESSEE
 Name: Kathy S. Edgell
 Address: 6251 Willey Fork Road
Burton, WV 26562

Name: _____
 Address: _____

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNERS(s) (Road and/or Other Disturbance)
 Name: Kathy S. Edgell
 Address: 6251 Willey Fork Road
Burton, WV 26562

 (see attached)

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: Gregory Coen
 Address: 5477 N. Fork Rd.
Pine Grove, WV 26419-8337

 (see attached)

Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments/Pits)
 Name: Kathy S. Edgell
 Address: 6251 Willey Fork Road
Burton, WV 26562

 (see attached)

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

*Please attach additional forms if necessary

01/01/2016

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

Received
Office of Oil & Gas
MAR 30 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.

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
MAR 3 0 2015

01/01/2016

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 depprivacyofficer@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

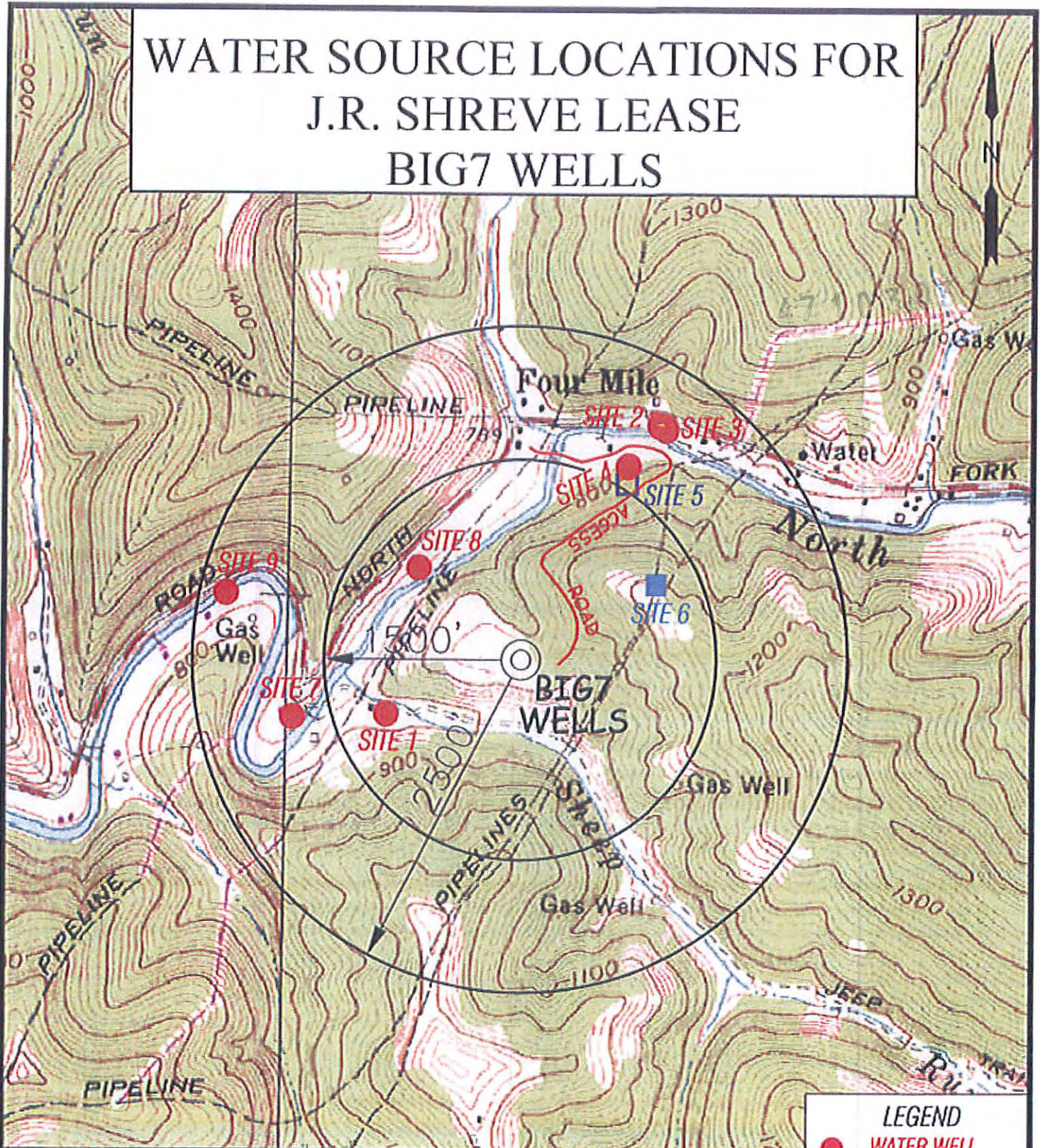
Subscribed and sworn before me 27 day of March, 2014
Mark R Neeley Notary Public
My Commission Expires August 24, 2022



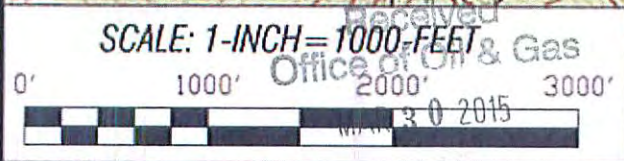
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Office of Oil & Gas
MAR 30 2015

WATER SOURCE LOCATIONS FOR J.R. SHREVE LEASE BIG7 WELLS



LEGEND	
●	WATER WELL
	CISTERN/SPRING
■	POND



Professional Energy Consultants
A DIVISION OF S&P CONSULTING INC.

S&P
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

DRAWN BY: K.O.W.
FILE NO: 6246
DATE: 03/25/15
CADD FILE: 4243802745.dwg

TOPO SECTION OF: BIG RUN, WV 7.5' QUAD		
DISTRICT	COUNTY	TAX MAP--PARCEL NO.
GRANT	WETZEL	07-39

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

01/01/2016

WW6-A

Additional Surface Owners (Road & other Disturbance)

Mary Dennison
101 Ford Avenue
Weirton, WV 26062

Robert Wildman
6642 North Fork Road
Pine Grove, WV 26419

Freda Delores Blake
6617 North Fork Road
Pine Grove, WV 26419

Walter Bickerstaff
7006 North Fork Road
Pine Grove, WV 26419

Additional Surface Owners (Pits or Impoundments)

Robert Wildman
6642 North Fork Road
Pine Grove, WV 26419

Additional Coal Owners

CNX RCPC LLC
Engineering Operations & Support Dept. Coal
1000 Consol Energy Drive
Canonsburg, PA 15317-6506
Attn: Ryan Arp

CNX Land LLC
CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317-6506
Attn: Ryan Arp

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

Murray American Energy Inc. WV
C/O Murray American Energy
1 Bridge Street
Monongah, WV 26554

4710303108

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Office of Oil & Gas
MAR 30 2015

01/01/2016

CBM Owner

CNX Gas Company LLC
Engineering Operations Support Dept. Coal
1000 Consol Energy Drive
Canonsburg, PA 15317-6506
Attn: Ryan Arp

Water Purveyors

Robert Wildman
6642 North Fork Rd.
Pine Grove, WV 26419

Karen Fotovich
P.O. Box 465
Pine Grove, WV 26419

47 103 03 109

Received
Office of Oil & Gas
MAR 30 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: 3/17/2015 **Date Permit Application Filed:** 3/27/15

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:	<u>Kathy S. Edgell</u>	Name:	<u>Mary Dennison</u>
Address:	<u>6251 Willey Fork Road</u>	Address:	<u>101 Ford Avenue</u>
	<u>Burton, WV 26562</u>		<u>Weirton, WV 26062</u>

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:	<u>WV</u>	UTM NAD 83	Easting	<u>532,749.20</u>
County:	<u>Wetzel</u>		Northing	<u>4,381,466.00</u>
District:	<u>Grant</u>		Public Road Access:	<u>Route 15</u>
Quadrangle:	<u>Big Run</u>		Generally used farm name:	<u>Edgell</u>
Watershed:	<u>Sheep Run and North Fork Fishing Creek</u>			

4710303108

This Notice Shall Include:

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

Notice is hereby given by:

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

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
MAR 30 2015

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

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Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 3/17/15 **Date Permit Application Filed:** 3/27/15

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: <u>Robert Wildman</u>	Name: <u>Freda Delores Blake</u>
Address: <u>6642 North Fork Road</u>	Address: <u>6617 North Fork Road</u>
<u>Pine Grove, WV 26419</u>	<u>Pine Grove, WV 26419</u>

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: <u>WV</u>	UTM NAD 83	Easting: <u>532,749.20</u>
County: <u>Wetzel</u>		Northing: <u>4,381,466.00</u>
District: <u>Grant</u>		Public Road Access: <u>Route 15</u>
Quadrangle: <u>Big Run</u>		Generally used farm name: <u>Edgell</u>
Watershed: <u>Sheep Run and North Fork Fishing Creek</u>		

This Notice Shall Include:

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

Notice is hereby given by:

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

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

MAR 30 2015

01/01/2016

WW-6A4
(1/12)

Operator Well No. 513866

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: 3/17/2015 **Date Permit Application Filed:** 3/27/15

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

HAND DELIVERY **CERTIFIED MAIL RETURN RECEIPT REQUESTED**

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

Name: Walter Bickerstaff Name: _____ 0
Address: 7006 North Fork Road Address: _____ 0
Pine Grove, WV 26419 _____ 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: 532,749.20
County: Wetzel Northing: 4,381,466.00
District: Grant Public Road Access: Route 15
Quadrangle: Big Run Generally used farm name: Edgell
Watershed: Sheep Run and North Fork Fishing Creek

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: EQT Production Company 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

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303108
Received
Office of Oil & Gas
MAR 30 2015

01/01/2016

WW-6A5
(1/12)

Operator Well No. 513866

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: MAR 27 2015 Date Permit Application Filed: MAR 27 2015

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: Kathy S. Edgell Name: _____ 0
Address: 6251 Willey Fork Road Address: _____ 0
Burton, WV 26562 _____ 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: 532,749.20
County: Wetzel Northing: 4,381,466.00
District: Grant Public Road Access: Route 15
Quadrangle: Big Run Generally used farm name: Edgell
Watershed: Sheep Run and North Fork Fishing Creek

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.

10303108
Office of Oil & Gas
MAR 30 2015

WW-6A5
(1/12)

Operator Well No. 513866

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: MAR 27 2015 Date Permit Application Filed: MAR 27 2015

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: Mary Dennison
Address: 101 Ford Avenue
Weirton, WV 26062

Name: Robert Wildman
Address: 6642 North Fork Road
Pine Grove, WV 26419

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: 532,749.20
County: Wetzel Northing: 4,381,466.00
District: Grant Public Road Access: Route 15
Quadrangle: Big Run Generally used farm name: 4710303108 Edgell
Watershed: Sheep Run and North Fork Fishing Creek

This Notice Shall Include:

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

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

Address: 115 Professional Place, P.O. Box 280
Bridgeport, WV 26330
Facsimile: 304-848-0040

Received
Office of Oil & Gas
MAR 30 2015

Oil and Gas Privacy Notice:

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

WW-6A5
(1/12)

Operator Well No. 513866

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: MAR 27 2015 Date Permit Application Filed: MAR 27 2015

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

CERTIFIED MAIL RETURN RECEIPT REQUESTED HAND DELIVERY

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4710303108

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: Freda Delores Blake
Address: 6617 North Fork Road
Pine Grove, WV 26419

Name: Walter Bickerstaff
Address: 7006 North Fork Road
Pine Grove, WV 26419

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: 532,749.20
County: Wetzel Northing: 4,381,466.00
District: Grant Public Road Access: Route 15
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This Notice Shall Include:

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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: 304-848-0040

Received
Office of Oil & Gas

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MAR 30 2015



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

April 29, 2013

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

4710303108

Subject: DOH Permit for the BIG7 Well Site Wetzel County

BIG7H1 510887	BIG7H2 511401	BIG7H3 512752	BIG7H4 512753
BIG7H5 512754	BIG7H6 512755	BIG7H7 513860	BIG7H8 513861
BIG7H9 513862	BIG7H10 513863	BIG7H11 513864	BIG7H12 513865
BIG7H13 513866	BIG7H14 513867	BIG7H15 513868	BIG7H16 513869
BIG7H17 513870	BIG7H18 513871		

Dear Dr. Martin,

Please find a revised list of well sites that are existing or proposed for the BIG7 Pad in Wetzel County and will be accessed from existing Permit # 06-12-0359 issued to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 15 SLS.

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

Very Truly Yours,

Gary K. Clayton
Regional Maintenance Engineer
Central Office O&G Coordinator

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

E.E.O./AFFIRMATIVE ACTION EMPLOYER

Received
Office of Oil & Gas
MAR 30 2015

01/01/2016

Anticipated Frac Additives
Chemical Names and CAS numbers

4710303108

<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

Received
Office of Oil & Gas
MAR 30 2015

01/01/2016

BIG 7 AS-BUILT SITE PLAN CONSTRUCTION NOTES

DESCRIPTION	
DATE	
REVISED	
 EQT Where energy meets innovation.	
Professional Energy Consultants CONSULTING ENGINEERS ARCHITECTS  SLS CONSULTING ENGINEERS ARCHITECTS 1000 WEST 10TH AVENUE SUITE 1000 DENVER, CO 80202 (303) 733-8800 WWW.SLSGROUP.COM	
THIS DOCUMENT WAS PREPARED BY SLS GROUP, INC. OR ECI	
BIG 7 AS-BUILT SITE PLAN THIS DOCUMENT WAS PREPARED BY SLS GROUP, INC. OR ECI	
DATE	01-25-2015
DESIGNED BY	ELM
FILE NO.	8748
SHEET	2 OF 18

CONSTRUCTION NOTES:

- METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS HEREIN SHALL CONFORM TO THE CURRENT COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR CURRENT WUPER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL STANDARDS AND SPECIFICATIONS
- MEASURES TO CONTROL EROSION AND SLOTTING, INCLUDING DETENTION PONDS SPRING AS NOTED DURING CONSTRUCTION, MUST BE PROVIDED PRIOR TO ISSUANCE OF THE SITE DEVELOPMENT PERMIT. THE APPROVAL OF THESE PLANS IN NO WAY RELIEVES THE DEVELOPER OR HIS AGENT OF THE RESPONSIBILITIES CONTAINED IN THE WUPER EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.
- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. ALSO, A REPRESENTATIVE OF THE DEVELOPER MUST BE AVAILABLE AT ALL TIMES.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLEY DUST, AND TO TAKE WHATEVER MEASURES ARE NECESSARY TO ENSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES.
- NOTIFICATION SHALL BE GIVEN TO THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION OF WATER AND/OR GAS PIPE LINES. INFORMATION SHOULD ALSO BE OBTAINED FROM THE APPROPRIATE AUTHORITY CONCERNING PERMITS, CUT SHEETS, AND CONNECTIONS TO EXISTING LINES.
- THE LOCATION OF EXISTING UTILITIES SHOWN IN THESE PLANS ARE FROM FIELD LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AS NEEDED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY CONFLICTS ARISING FROM HIS EXISTING UTILITY VERIFICATION AND THE PROPOSED CONSTRUCTION.
- THE DEVELOPER WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STREETS AND UTILITIES WHICH OCCURS AS A RESULT OF HIS CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
- WHEN GRADING IS PROPOSED WITHIN EASEMENTS OF UTILITIES, LETTERS OF PERMISSION FROM ALL INVOLVED COMPANIES MUST BE OBTAINED PRIOR TO GRADING AND/OR SITE DEVELOPMENT.
- THE DEVELOPER WILL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITIES WHICH IS REQUIRED AS A RESULT OF HIS PROJECT. THE RELOCATION SHOULD BE DONE PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS TO VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND SURVEY LAND SURVEYING AT (304) 462-5634 IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLAN.
- CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATING OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.
- CONTRACTOR TO CONTACT OPERATOR AND ENGINEER IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR DAILY AND CHECKED AFTER EVERY RAINFALL. ALL DRAIN INLETS SHALL BE FREE OF SILTATION AND DEBRIS. EFFECTIVE MEASURES SHALL BE REPLACED AS NECESSARY.
- THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE EROSION AND SEDIMENT CONTROL INSPECTOR 2 DAYS PRIOR TO THE START OF CONSTRUCTION.

SITE CLEANUP & RECYCLE PROGRAM

- GARBAGE, FUELS OR ANY SUBSTANCE HARMFUL TO HUMAN, ANIMAL OR PLANT LIFE, SHALL BE PREVENTED FROM ENTERING SPILLS, STREAMS, PONDS, LAKES, WETLANDS OR ANY WATER COURSE OR WATER BODY.
- OILS, FUELS, LUBRICANTS AND COOLANTS SHALL BE PLACED IN SUITABLE CONTAINERS AND DISPOSED PROPERLY.
- ALL TRASH AND GARBAGE WILL BE COLLECTED AND DISPOSED PROPERLY.
- ALL SEDIMENT REMOVED FROM SEDIMENT CAPTURING DEVICES SHALL BE WALCED AT AN AREA IN THE PLANT (A MILE ROUND TRIP), THEN SPREAD AND MULCHED.

MAINTENANCE PROGRAM

ALL MAINTENANCE ACTIVITIES WILL BE PERFORMED BY THE CONTRACTOR DURING THE ACTIVE CONSTRUCTION PHASE OF THE PROJECT. UPON COMPLETION OF THE ACTIVE CONSTRUCTION PHASE, FIELD ENGINEER/OPERATOR WILL PERFORM MAINTENANCE ACTIVITIES.

- SWP'S WILL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RAINFALL EVENT DURING THE ACTIVE CONSTRUCTION PHASE OF THE PROJECT.
- ALL REVEGETATED ACCESS ROADS AND FACILITIES ARE TO BE MAINTAINED THROUGHOUT THE LIFE OF EACH STRUCTURE.
- CULVERTS, ROAD DITCHES, BROAD-MAID DIPS, OVERFLOW DITCHES, AND ROCK CHECK DAMS MUST BE MAINTAINED IN PROPER WORKING ORDER AND WILL BE CLEANED OUT, REPAIRED, OR REPLACED AS NECESSARY.
- FILTER STRIPS AND/OR Silt FENCE WILL BE MAINTAINED.
- ALL AREAS OF EARTH DISTURBANCE WILL BE REPAIRED WHEN SIGNS OF ACCELERATED EROSION ARE DETECTED.
- SEEDING AND MULCHING WILL BE REPEATED IN THOSE AREAS THAT APPEAR TO BE FAIRING OR HAVE FAILED.

CONSTRUCTION SEQUENCE

THE DEVELOPMENT OF THIS SITE SHALL BE CONSISTENT WITH THE FOLLOWING GENERAL SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT, MAINTAIN AND CREATE ALL PROPOSED EROSION AND SEDIMENT MEASURES TO EFFECTIVELY MITIGATE THE HAZARD OF ACCELERATED EROSION AND SEDIMENTATION TO ACCEPTABLE LEVELS. MINOR DEVIATIONS FROM THIS SEQUENCE SHALL BE EXECUTED BY THE PROJECT'S SUPERINTENDENT AS NEEDED TO ELIMINATE ANY POTENTIAL EROSION CONDITION THAT MAY ARISE FOR THE DURATION OF THE PROJECT. THE WUPER OFFICE OF OIL AND GAS SHALL BE NOTIFIED IN ADVANCE AND ALL SUCH DEVIATIONS FROM THE APPROVED PLANS.

- THE EXISTING WELL PAD AND ACCESS ROAD ARE MOSTLY STABILIZED WITH VEGETATION. ANY AREAS THAT APPEAR UNSTABLE AND/OR ERODING DURING THE GRADING PROCESS SHALL BE ADEQUATELY STABILIZED IMMEDIATELY.
- ADEQUATE OUTLET PROTECTION SHALL BE INSTALLED AT ALL EXISTING CULVERTS.
- ROCK CHECK DAMS SHALL BE INSTALLED IN ALL EXISTING DITCH LINES, AS NECESSARY.
- ADDITIONAL DRAINS SHALL BE PLACED ON THE WELL PAD AND ACCESS ROAD, AS NECESSARY.
- ANY EXISTING Silt FENCE ALONG THE TOP OF SLOPE SHALL BE REPAIRED, AS NECESSARY.

D.H.
4-6-15



BIG 7 AS-BUILT SITE PLAN EQT PRODUCTION COMPANY

API NO. 47-103-02802, 47-103-02806, 47-103-02807, 47-103-02808, 47-103-02871,
47-103-02897, 47-103-02899, & 47-103-02898.
PROPOSED WELLS, H13 WV513866

RECEIVED
Office of Oil and Gas
APR 09 2015
WV Department of
Environmental Protection

SHEET 4

SHEET 5

SHEET 7

SHEET 9

SHEET 6

SHEET 8

DATE: 03-25-2015
SCALE: 1"=100'
DESIGNED BY: KJH
FILE NO: 624A
SHEET 3 OF 10

D-14
4-6-15

SCALE
1 INCH = 100 FEET

Professional Energy Consultants
SLS
SOLUTIONS
SURVEYING
ENGINEERING
ENVIRONMENTAL
PROJECT MGMT
WWW.PECONSULT.COM

EQT
Where energy meets innovation.

REVISION	DATE	DESCRIPTION

THIS DOCUMENT HAS BEEN PREPARED BY SLS AND SUBMITTED FOR REVIEW BY EQT

BIG 7 AS-BUILT
SITE PLAN
THIS DOCUMENT WAS PREPARED BY SLS AND SUBMITTED FOR REVIEW BY EQT

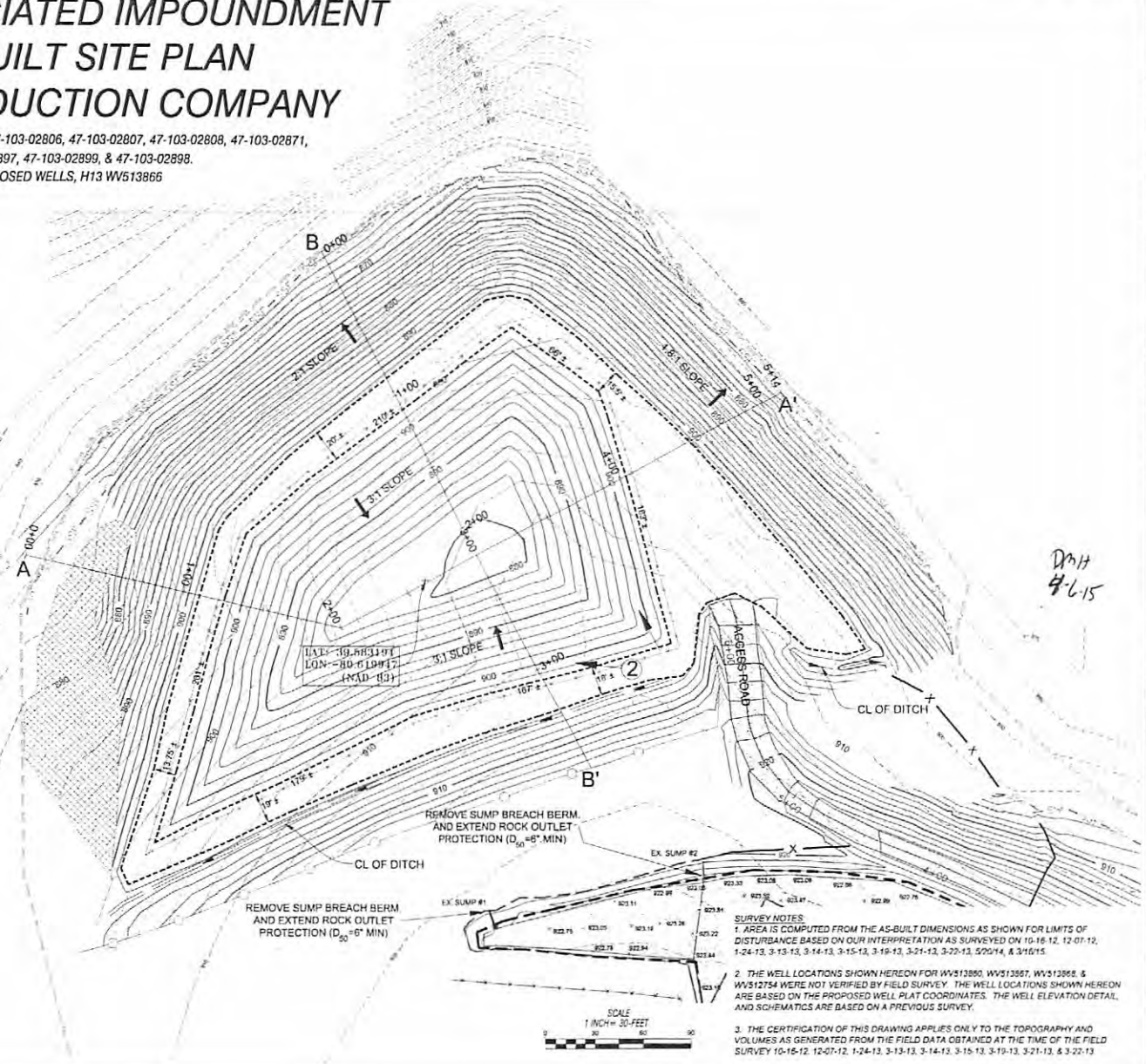


BIG 7 ASSOCIATED IMPOUNDMENT AS-BUILT SITE PLAN EQT PRODUCTION COMPANY

API NO. 47-103-02802, 47-103-02806, 47-103-02807, 47-103-02808, 47-103-02871,
47-103-02897, 47-103-02899, & 47-103-02898.
PROPOSED WELLS, H13 WV513866

SITE RECLAMATION NARRATIVE
WITHIN SIX MONTHS OF THE EXPIRATION OR APPROVAL OF THE WELL SITE, THIS SITE SHALL BE CLOSED AND RESTORED TO A PRE-CONSTRUCTION CONDITION. ALL PIPING FOR ANY FLOODWATER DRAINAGE SYSTEM, WATER LINES AND ASSOCIATED STRUCTURES SHALL BE REMOVED. ALL EXISTING BIRMS SHOWN SHALL BE INSPECTED FOR DAMAGE AND REPAIRED AS NECESSARY BEFORE RECLAMATION CAN BEGIN. THE SITE SHALL BE REGRADED AS INDICATED ON THE PLAN TO PRE-CONSTRUCTION GRADES. THE SITE SHALL BE SEEDED AND MULCHED PER THE REVEGETATION DETAILS ON SHEET 16.

NOTE
ANY AREAS BACKFILLED DURING RECLAMATION WILL BE COMPLETED USING MINIMUM 24" LIFT THICKNESS AND WILL BE COMPACTED TO AT LEAST 90% OF THE STANDARD PROCTOR (ASTM D-1558).



Draft
4-6-15

SURVEY NOTES

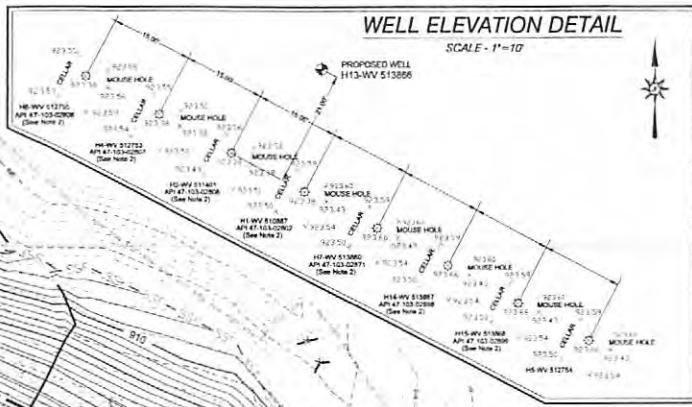
1. AREA IS COMPUTED FROM THE AS-BUILT DIMENSIONS AS SHOWN FOR LIMITS OF DISTURBANCE BASED ON OUR INTERPRETATION AS SURVEYED ON 10-16-12, 12-07-12, 1-24-13, 3-13-13, 3-14-13, 3-15-13, 3-19-13, 3-21-13, 3-22-13, 5/29/14, & 3/16/15.
2. THE WELL LOCATIONS SHOWN HEREON FOR WV513860, WV513867, WV513868, & WV512754 WERE NOT VERIFIED BY FIELD SURVEY. THE WELL LOCATIONS SHOWN HEREON ARE BASED ON THE PROPOSED WELL PLAT COORDINATES. THE WELL ELEVATION DETAIL AND SCHEMATICS ARE BASED ON A PREVIOUS SURVEY.
3. THE CERTIFICATION OF THIS DRAWING APPLIES ONLY TO THE TOPOGRAPHY AND VOLUMES AS GENERATED FROM THE FIELD DATA OBTAINED AT THE TIME OF THE FIELD SURVEY 10-16-12, 12-07-12, 1-24-13, 3-13-13, 3-14-13, 3-15-13, 3-19-13, 3-21-13, & 3-22-13.

DESCRIPTION	
REVISION	DATE
 Where energy meets innovation.	
 Professional Energy Consultants	
SURVEYORS ENGINEERS PROJECT MGMT. WWW.SLSURV.COM 304-453-8344	
THIS DOCUMENT WAS PREPARED BY SETH LEAD SURVEYING, INC. FOR: EQT	
BIG 7 AS-BUILT SITE PLAN	
THIS DOCUMENT WAS PREPARED BY SETH LEAD FOR EQT	
DATE	03-25-2015
SCALE	1"=30'
DESIGNED BY	KJH
FILE NO.	6246
SHEET	4 OF 16

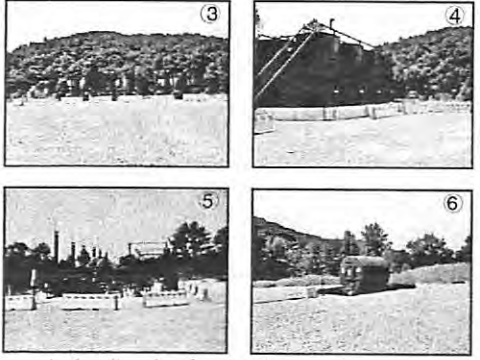
RECEIVED
 Office of Oil and Gas
 APR 09 2015
 WV Department of
 Environmental Protection

BIG 7 AS-BUILT SITE PLAN EQT PRODUCTION COMPANY

API NO. 47-103-02802, 47-103-02806, 47-103-02807, 47-103-02808, 47-103-02871,
47-103-02897, 47-103-02899, & 47-103-02898.
PROPOSED WELLS, H13 WVS13866



REMOVE SUMP BREACH BERM AND EXTEND ROCK OUTLET PROTECTION (D₅₀ = 6" MIN)



TOTAL PAD AREA
2.7 ACRES ±

CEMETERY

STOCKPILE AREA

LAT: 39.582170
LON: -80.618629
(NAD 83)

DNAH
4615



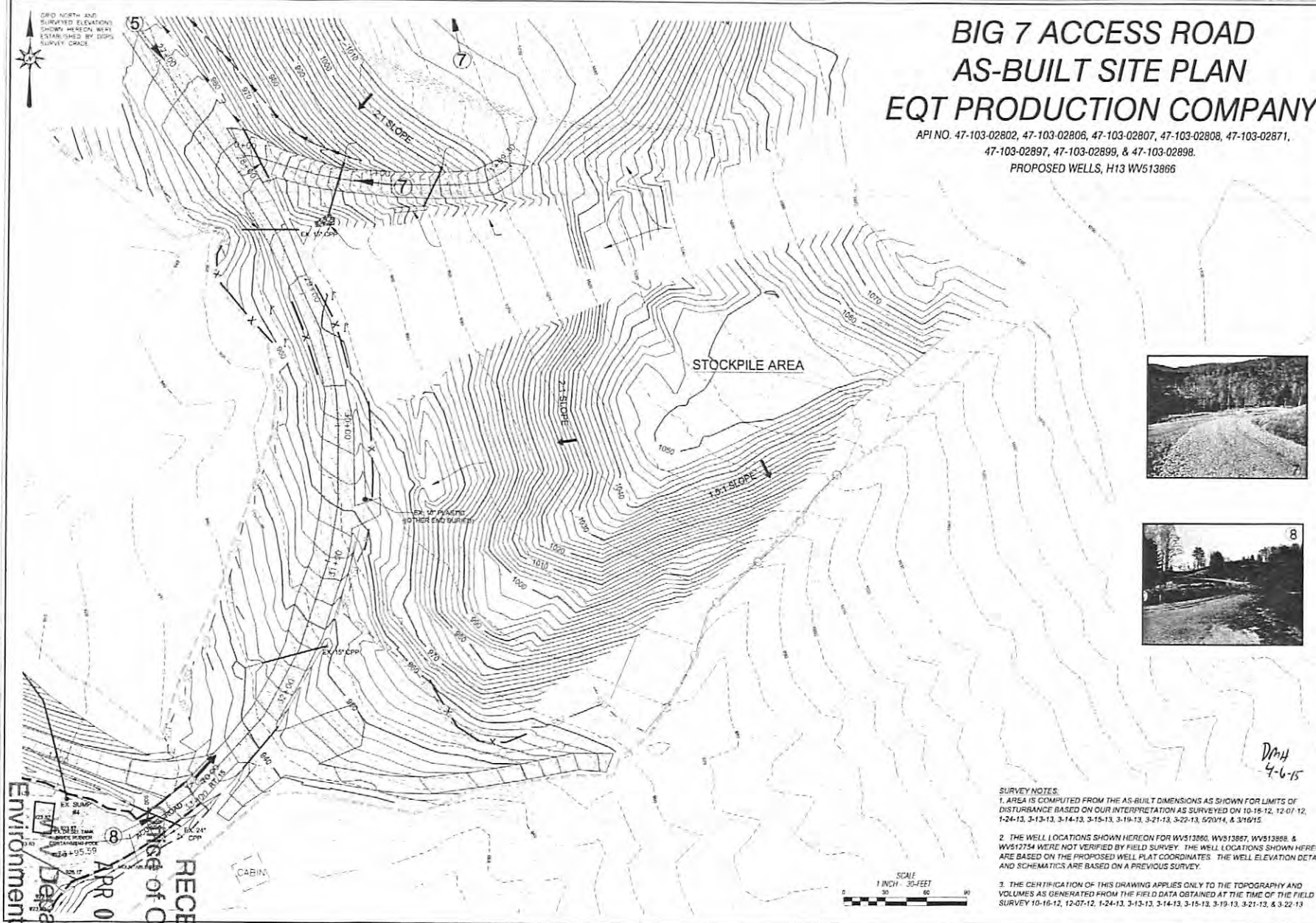
- SURVEY NOTES**
1. AREAS COMPUTED FROM THE AS-BUILT DIMENSIONS AS SHOWN FOR LIMITS OF DISTURBANCE BASED ON OUR INTERPRETATION AS SURVEYED ON 10-16-12, 12-07-12, 1-28-13, 3-13-13, 3-14-13, 3-15-13, 3-19-13, 3-21-13, 3-22-13, 5-20-14, & 3-16-15
 2. THE WELL LOCATIONS SHOWN HEREON FOR WVS13866, WVS13867, WVS13868, & WVS13754 WERE NOT VERIFIED BY FIELD SURVEY. THE WELL LOCATIONS SHOWN HEREON ARE BASED ON THE PROPOSED WELL PLANS. COORDINATES, THE WELL ELEVATION DETAIL AND SCHEMATICS ARE BASED ON A PREVIOUS SURVEY.
 3. THE CERTIFICATION OF THIS DRAWING APPLIES ONLY TO THE TOPOGRAPHY AND VOLUMES GENERATED FROM THE FIELD DATA OBTAINED AT THE TIME OF THE FIELD SURVEY, 10-16-12, 12-07-12, 1-28-13, 3-13-13, 3-14-13, 3-15-13, 3-19-13, 3-21-13, & 3-22-13

NO.	DESCRIPTION
REVISION	DATE
 EQT Where energy meets innovation.	
Professional Energy Consultants A DIVISION OF BENTLEY SYSTEMS, INC. SURVEYING ENGINEERING PROJECT MGMT. 1000 W. MAIN SUITE 1000 WWW.BENTLEY.COM	
THIS DOCUMENT WAS PREPARED BY SPM & L&D SURVEYING, INC. 100 W. 221	
BIG 7 AS-BUILT SITE PLAN	
THIS DOCUMENT WAS PREPARED BY SPM & L&D SURVEYING, INC. 100 W. 221	
DATE	03-25-2015
SCALE	1"=30'
DISTRICT	NY 62H
FILE NO.	6246
SHEET	5 OF 16

Department of
Environmental Protection
RECEIVED
Oil and Gas
09 2015

BIG 7 ACCESS ROAD AS-BUILT SITE PLAN EQT PRODUCTION COMPANY

API NO. 47-103-02802, 47-103-02806, 47-103-02807, 47-103-02808, 47-103-02871,
47-103-02897, 47-103-02899, & 47-103-02898.
PROPOSED WELLS, H13 WVS13866



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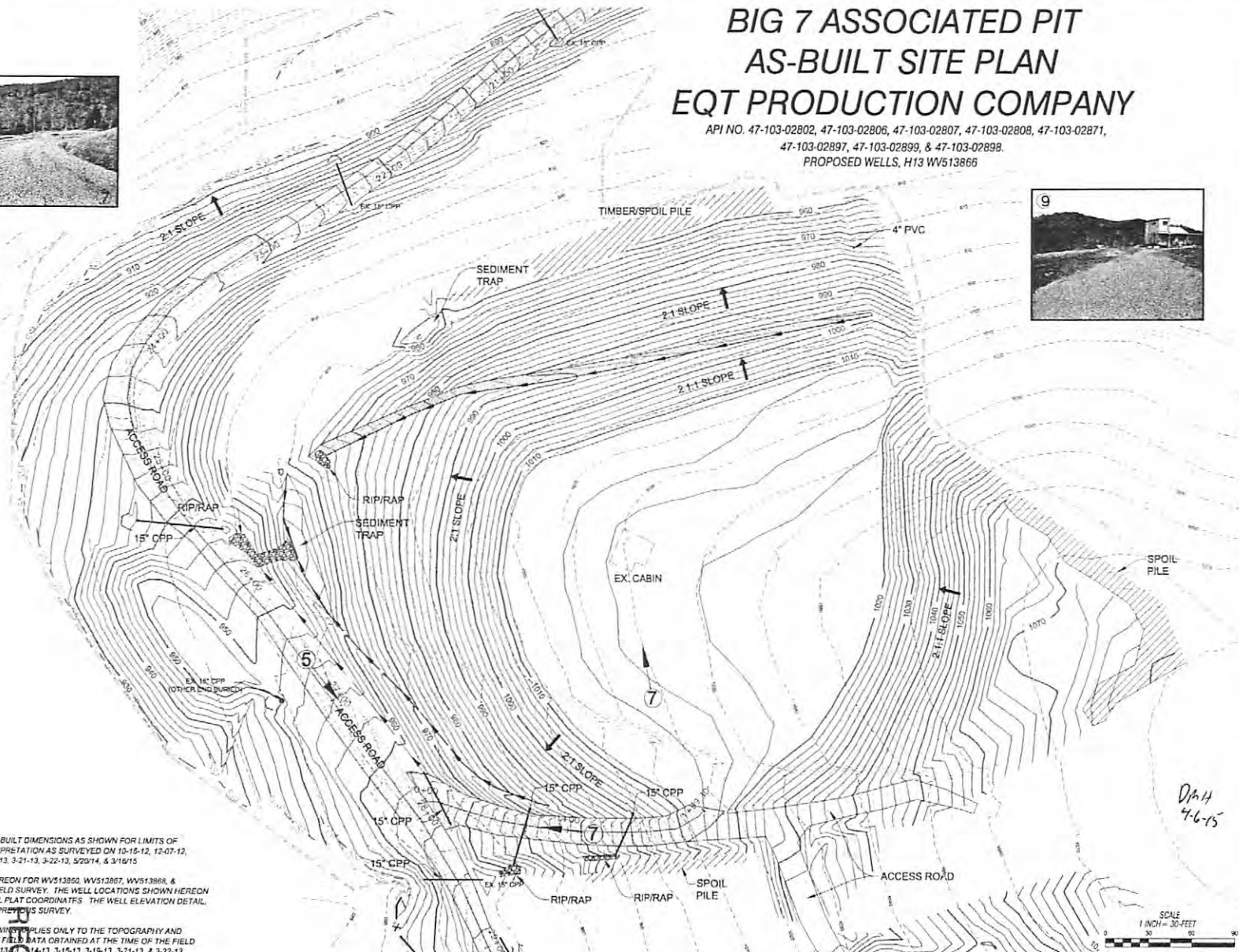
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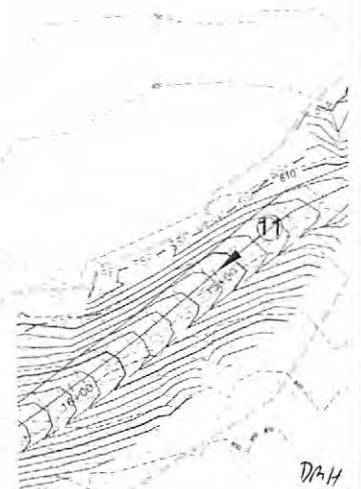
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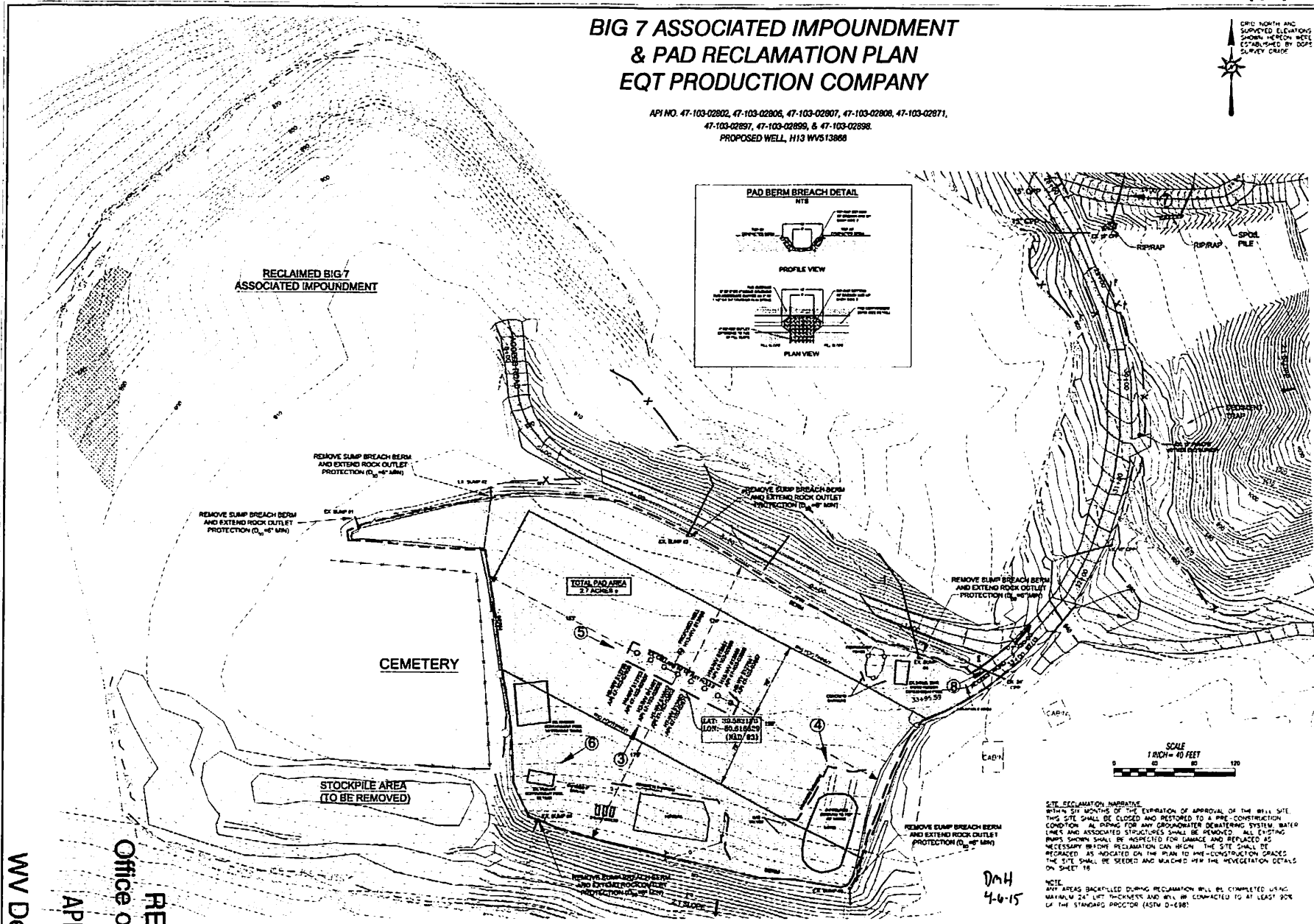
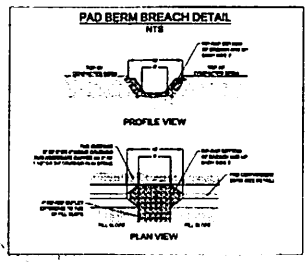
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SITE RECLAMATION NARRATIVE
WITHIN SIX MONTHS OF THE EXPIRATION OF APPROVAL OF THE WELL SITE THIS SITE SHALL BE CLOSED AND RESTORED TO A PRE-CONSTRUCTION CONDITION. ALL DURING FOR ANY GROUNDWATER DECONTAMINATING SYSTEM, WATER LINES AND ASSOCIATED STRUCTURES SHALL BE REMOVED. ALL EXISTING BIRDS SHOWN SHALL BE INSPECTED FOR DAMAGE AND REPLACED AS NECESSARY BEFORE RECLAMATION CAN BEGIN. THE SITE SHALL BE REGRACED AS INDICATED ON THE PLAN TO PRE-CONSTRUCTION GRADES. THE SITE SHALL BE SEEDED AND MAINTAINED PER THE VEGETATION DETAILS ON SHEET 19.

NOTE
ANY AREAS BACKFILLED DURING RECLAMATION WILL BE COMPLETED USING MAXIMUM 24" LIFT THICKNESS AND WILL BE COMPACTED TO AT LEAST 90% OF THE STANDARD PROCTOR (ASTM D-698).

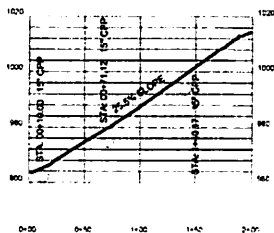
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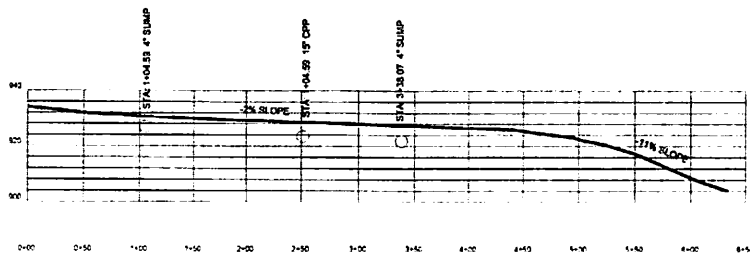
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BIG 7 ACCESS ROAD TO RECLAIMED PIT AND ASSOCIATED IMPOUNDMENT PROFILE

ACCESS ROAD TO RECLAIMED PIT



ACCESS ROAD TO IMPOUNDMENT



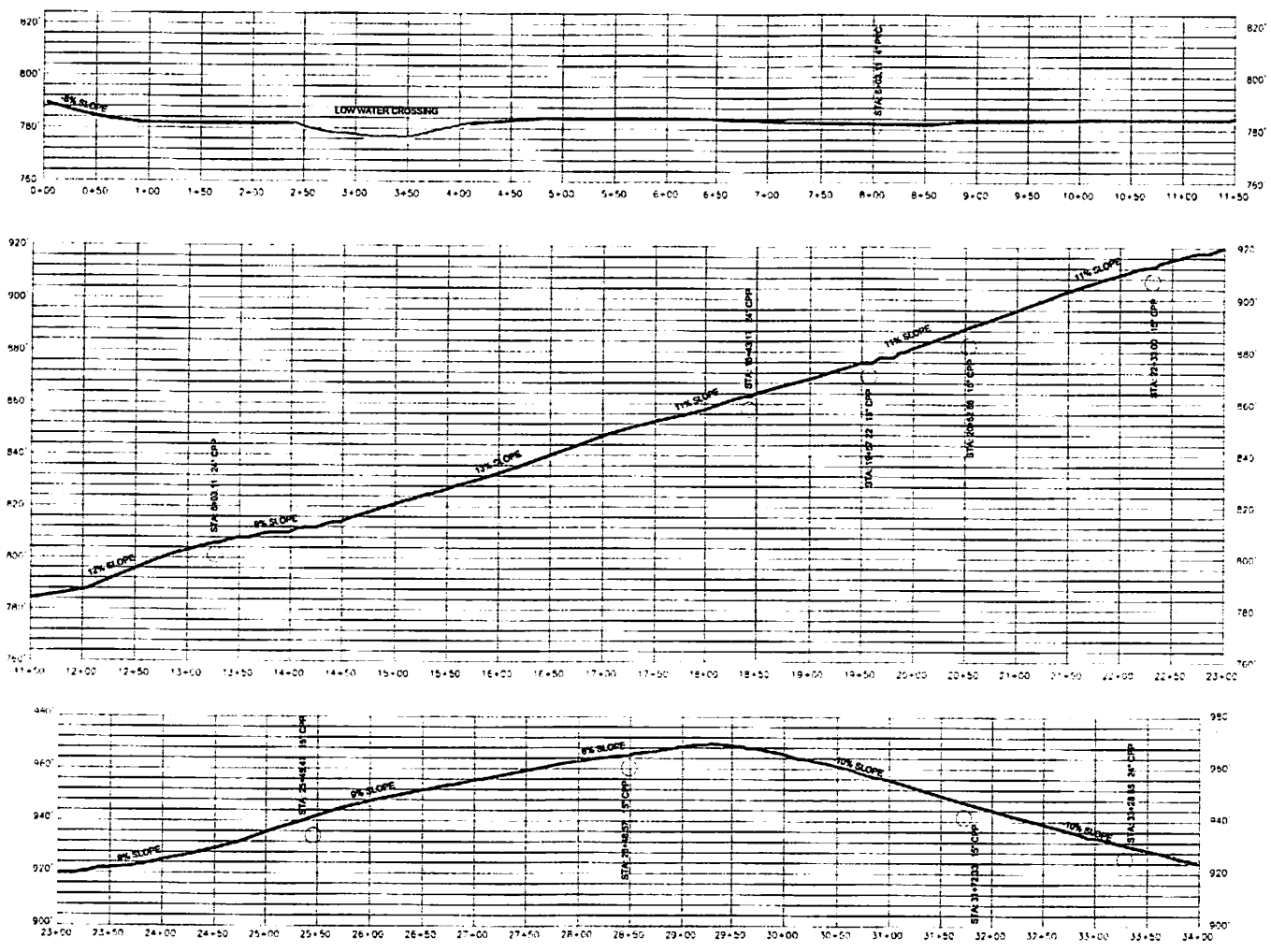
ACCESS ROAD TO RECLAIMED PIT PROFILE "STA 0+00 - 0+99.30"
 ACCESS ROAD TO IMPOUNDMENT PROFILE "STA 0+00 - 6+33.64"
 SCALE HORIZ 1" = 50' VERT 1" = 20'

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BIG 7 ACCESS ROAD PROFILE



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VEGETATION
 Taken from the
 West Virginia Erosion and Sediment Control Field Manual
 West Virginia Division of Environmental Protection Office of Oil and Gas
 Chapter 51-10-9
 Section A

General Notes

- General Conditions where Practice Applies**
 Where exposed soil surfaces are not to be re-graded or sanded for periods longer than 21 days. Temporary vegetation must be installed continuously upon construction of the site (site includes road and location). Permanent vegetation cover shall be applied to areas that will be left unworked for a period of more than six months.
- Seed Mixture and Seeding Dates**
 Refer to Tables 2 through 4 for recommended dates to establish vegetation cover and the respective lists of temporary and permanent plant species and seeding rates. Table 3 gives recommended types of temporary vegetation, rates of application, and optimum seeding dates. In situations where another cover is desired, consult the local soil conservation district for seeding recommendations.
- Seed Application**
 Apply seed by broadcasting, mixing or by hydroseed according to the rates indicated in Table 3. Perform all seeding operations at right angles to the slope. Necessary site preparation and roughness of the soil surface should be done just prior to seeding. Seeding preparation may not be required on newly disturbed areas.

Permanent Seeding

- General**
 Permanent vegetative cover can be established when a further soil disturbance is anticipated or needed. Soil fertility and pH level should be tested and adjusted according to seed species planted. Drilling of holes and application of seed may be performed on an undisturbed area after completion of the grading process. Any site that contains significant amounts of toxic soil shall have the toxic material removed prior to seeding. Topsoil should not be added to areas deeper than 2 1/2 inches a good bearing to the sub-layer can be obtained. After proper grading and seed preparation, the vegetation seed preparation should cover the entire surface under runoff erosion.
- Required Seeding Preparation and Seeding of Soil**
 Seeding should be performed just prior to seeding. If seeded preparation is not feasible, 50% more seed shall be added to the recommended rates shown in Tables IV-3 and IV-4.
 When hydroseeding, seeded preparation may not be necessary. A adequate seeding preparation was performed. Incorporate the appropriate amount of lime and/or fertilizer in the slurry mix when hydroseeding.
 When hydroseeding, first mix the lime, fertilizer, and fiber mulch in the recommended amount of water. Mix the seed and mulch together in a separate container. Apply the slurry uniformly over the prepared site. Assume that sufficient water is available throughout the seeding operation and the mix is applied within one hour of final mixing.

Lime and Fertilizer

- Lime shall be applied to permanent seedings. The pH of the soil is to be determined and lime applied accordingly. Once the pH is known, select the amount of lime to be applied from Table 3.
- Fertilizer shall be applied as permanent seedings. Apply the recommended rate (500 to 1000 lbs/acre) of fertilizer per acre. Use only the amount of fertilizer and lime recommended by a certified soil test.
- Application of fertilizer and lime should be done at the same time and fertilizer rate to be applied at the time of seed preparation.

Permanent Seed Mixture

- Permanent seed mixtures should take into consideration the species mixture of the existing surface and the surrounding area. For a positive recommendation, permanent seed mixtures should be taken from Tables IV-3 and IV-4. Permanent Seeding Mixtures suitable for Establishment in West Virginia include:
- All mixtures must be planted with the proper nutrients prior to seeding.
 - Lime and fertilizer is extremely important to some mixtures.
 - Only endocarpic free varieties of the fescue should be used. The fescue and Cremonese are also very invasive species, non-native to WV.
 - For widespread seedings or seeding on the steep slopes, mixtures use 50% more seed to the specified rate. Mixtures in Table 4b are more widely used than fescue, those listed in Table 3 are suitable for use in a planted woodland settings. Mixtures in Table 3 are suitable for use in steep slopes.

Seeding for Wildlife Habitat

- Consult the use of the native plants or locally adapted plants when selecting cover types and species for wildlife habitat. Wildlife-friendly species or mixes that have multiple values should be considered in the native species/mixtures in Table IV-4b. Consider carefully the use of the indigenous wildflower species available to sites which may be difficult to maintain with equipment.

Mixtures

- General Organic Mixtures**
 The application of straw hay or other suitable materials to the soil surface to prevent erosion. Straw made from wheat or oats is the preferred mulch, the use of hay is permissible, but not encouraged due to the risk of spreading invasive species. Mulch must be applied to all temporary and permanent seeding on all disturbed areas. Depending on site conditions in critical areas such as waterways or steep slopes, additional or substitute soil protection measures may be used if deemed necessary. Examples include jute mesh and soil stabilization blankets or erosion control matting.
- Areas that have been temporarily or permanently seeded should be mulched immediately following seeding.** Mulches consist of suitable soil particles, reduce soil moisture loss, prevent crusting, and sealing of the soil surface and provide a suitable microclimate for seed germination.
- Areas that cannot be seeded because of the season should be mulched to provide some protection to the soil surface.** An organic mulch, straw or hay should be used and the area then seeded as soon as weather or seasonal conditions permit. Do not use fiber mulch (cellulose-hydroxyresin) alone for this practice. A normal application rate is not give the soil protection of other types of mulch.
- Wood chip mulch fiber mulch is used in hydroseeding operations and applied as part of the slurry.** It creates the best seed-soil contact when applied over the top of (or in a separate operation) newly seeded areas. Fiber mulch does not alone provide sufficient protection on highly erodible soils, or during less than favorable growing conditions. Fiber mulch should not be used alone during the dry summer months or when used for site the mulch cover. Use straw mulch during these periods and fiber mulch may be used to top (anchor) the straw mulch. Fiber mulch is not suited for steep slopes, erode areas and areas susceptible to wind.

- Chemical Mulches, Soil Binders and Topsoils**
 A wide range of synthetic spray on materials are marketed to stabilize and protect the soil surface. These are mixed with water and sprayed over the mulch and to the soil. They may be very effective in some cases of temporary stabilization, or in conjunction with fiber mulch. Straw or hay when used alone most chemical mulches do not have the capability to reduce the soil or retain soil moisture than organic mulches have.
- Soil Erosion**
 From Table IV-6 select the type of mulch and rate of application that will best suit the conditions at the site.

- Grading**
 Depending on the field situation, mulch may not stay in place because of wind action or rapid water runoff. In such cases, mulch is to be protected mechanically by soil mulch netting.
- Mechanical Anchoring**
 Apply mulch and soil mulch anchoring (see user's manual). When a 2x4 is used set the hole string and butt across slope. Water material should be placed into the soil about three inches.
- Mulch Netting**
 Follow manufacturer's recommendation when purchasing and stiping the mulch netting in the soil.

Table IV-1

Recommended Seeding Dates		Planting Dates	Seeding Dates	Seeding Dates
March 1 - April 15	August 1 - October 1	Best Seeding Period	March 1 - August 1	October 1 - December 1
April 15 - August 1	October 1 - December 1	Good Seeding Period	December 1 - March 1	

Table 2

Species	N (lb/acre)	P2O5 (lb/acre)	Excelsior Rate (lb/acre)
Cool Season Grass	40	80	400 lb. 10-20-20
CS Grass & Legume	30	60	300 lb. 10-20-20
Temporary Cover	40	40	200 lb. 19-19-19

Table 3

Temporary Cover				
Species	Seeding Rate (lb/acre)	Optimum Seeding Date	Drainage	pH Range
Annual Ryegrass	40	3/1 - 6/15 or 8/15 - 9/15	Well - Poorly	5.5 - 7.5
Field Bromegrass	40	3/1 - 6/15 or 8/15 - 9/15	Well - Mod. Well	6.0 - 7.0
Spring Oat	96	3/1 - 6/15	Well - Poorly	5.5 - 7.0
Sandgrass	40	3/15 - 8/15	Well - Poorly	5.5 - 7.5
Wheat Type	168	8/15 - 10/15	Well - Poorly	5.5 - 7.4
Winter Wheat	180	8/15 - 11/15	Well - Mod. Well	5.5 - 7.0
Japanese Millet	30	6/15 - 8/15	Well	4.5 - 7.0
Redtop	5	3/1 - 6/15	Well	4.0 - 7.5
Annual Ryegrass	26	3/1 - 6/15	Well - Poorly	5.5 - 7.5
Spring Oat	64	3/1 - 6/15	Well - Poorly	5.5 - 7.5

NOTE: These rates should be increased by 50% if planted April 15 - August 1 and October 1 - March 1.

Table 4a

Species/Mixture	Seeding Rate (lb/acre)	Soil Drainage Preference	pH Range
Crowmunch / Tall Fescue	40	Well - Mod. Well	5.0 - 7.5
Crowmunch / Perennial Ryegrass	20	Well - Mod. Well	5.0 - 7.5
Florges or Perennial Poa / Tall Fescue	15	Well - Mod. Well	4.0 - 8.0
Ladino Clover / Serotia Legumosa / Tall Fescue	25	Well - Mod. Well	4.5 - 7.5
Ladino Clover / Ryegrass	1	Well - Mod. Well	5.0 - 7.5
Crowmunch / Tall Fescue / Redtop	3	Well - Mod. Well	5.0 - 7.5
Redtop / Tall Fescue / Ladino Clover	10	Well - Mod. Well	5.0 - 7.5
Redtop / Ladino Clover / Serotia Legumosa / Tall Fescue	25	Well - Mod. Well	4.5 - 7.5
Redtop / Tall Fescue / Ladino Clover	1	Well - Mod. Well	5.0 - 7.5
Redtop / Tall Fescue / Creeping Red / Tall Fescue	50	Well - Poorly	4.5 - 7.5
Perennial Ryegrass / Ladino Clover	15	Well - Poorly	5.0 - 8.0
Ladino Clover	20		

* Ladino Clover is primarily poisonous to some livestock. All mixtures should be planted with proper nutrients prior to seeding. For unimproved situations or seeding outside the optimum time frame, add 50% more seed to the specified rate.
 Mixtures listed in bold are suitable for use in shaded woodland settings, those in italics are suitable for use in full sun.

Table 4b

Species/Mixture	Seeding Rate (lb/acre)	Soil Drainage Preference	pH Range
KY Bluegrass / Ryegrass / Ladino Clover or Birdfoot Trefoil	2/10	Well - Mod. Well	5.5 - 7.5
Timothy / Alfalfa	12	Well - Mod. Well	6.5 - 8.0
Timothy / Birdfoot Trefoil	5	Well - Poorly	5.5 - 7.5
Orchardgrass / Ladino Clover / Redtop	2	Well - Mod. Well	5.5 - 7.5
Orchardgrass / Ladino Clover	10	Well - Mod. Well	5.5 - 7.5
Orchardgrass / Perennial Ryegrass	20	Well - Mod. Well	5.5 - 7.5
Creeping Red Fescue / Perennial Ryegrass	30	Well - Mod. Well	5.5 - 7.5
Orchardgrass or KY Bluegrass / Birdfoot Trefoil / Redtop / Orchardgrass	10	Well - Mod. Well	6.0 - 7.5
Orchardgrass / Ladino Clover	20	Well - Mod. Well	5.5 - 7.5
Orchardgrass / Perennial Ryegrass / Ladino Clover	30	Well - Mod. Well	5.5 - 7.5
Orchardgrass	20	Well - Mod. Well	5.5 - 7.5

* Timothy is primarily poisonous to some livestock. All mixtures should be planted with proper nutrients prior to seeding. For unimproved situations or seeding outside the optimum time frame, add 50% more seed to the specified rate.
 Mixtures listed in bold are suitable for use in shaded woodland settings, those in italics are suitable for use in full sun.

Table IV-5

pH of Soil	Lime to Test per Acre	Fertilizer (lb/acre)	Excelsior (lb/acre)
Above 6.0	0	500	500
5.0 to 6.0	1	500	500
Below 5.0	4	500	500

The pH of soil is determined with a portable pH testing kit or by sending soil samples to a soil testing laboratory. When it is found to be acidic, it must be incorporated into the soil by double, backhoeing or tracking up and down the slope.

Table IV-6

Mulch Materials Rates and Uses			
Material	Minimum Rate per Acre	Coverage	Remarks
Hay or Straw	7 to 8 tons	Cover 75% to 90%	Subject to wind blowing or washing unless tied down
Wood Fiber	100 to 150 tons	Cover All	For hydroseeding
Pulp Fiber	1000 to 1500 lbs	Disturbed Areas	
Wood - Cellulose			
Recycled Paper			

Tables IV-1 thru IV-6 taken from Natural Resources Conservation Service Manual "Critical Area Planning"



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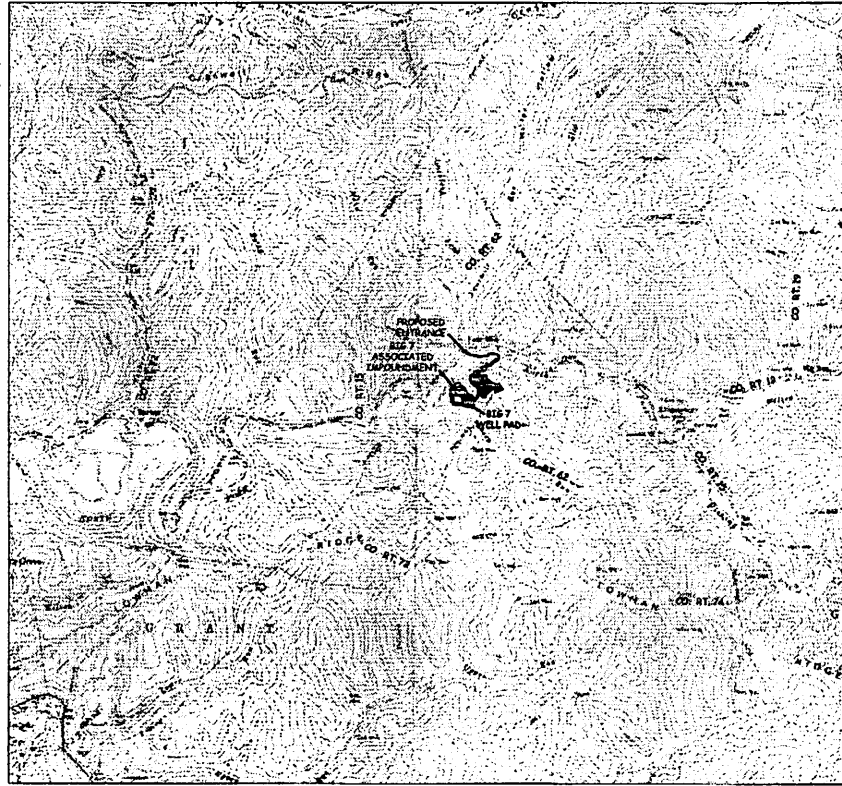
BIG 7 AS-BUILT SITE PLAN

EQT PRODUCTION COMPANY

API NO. 47-103-02802, 47-103-02806, 47-103-02807, 47-103-02808, 47-103-02871,
 47-103-02897, 47-103-02899, & 47-103-02898.
PROPOSED WELL H13 WV513866

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

LOCATION MAP



PROJECT INFORMATION

PROJECT NAME: SW 26 AS BUILT SITE PLAN
 TAX PARCEL:
 NEW WELTON DISTRICT
 MAP 3-01

SURFACE OWNER:

SUE ANN SPINER
 NEW WELTON DISTRICT
 COODRIDGE COUNTY, WV
 TOTAL PROPERTY AREA: 872.01 ACRES

ROYALTY OWNER:

LEWIS MARSHALL, JR. PMS
 NEW WELTON DISTRICT
 COODRIDGE COUNTY, WV
 TOTAL PROPERTY AREA: 1447.188 ACRES

SITE LOCATION:

THE BIG 7 SITE IS LOCATED ON A POINT TO THE SOUTH OF
 CO. RT. 10, APPROXIMATELY 1.710 MI SOUTH OF QUAD BOUND.

LOCATION COORDINATES

BIG 7 SITE ENTRANCE
 LATITUDE: 39.586677 LONGITUDE: -80.618498 (NAD 83)
 NORTHING: 4381953.55 EASTING: 532760.43 (UTM)

BIG 7 WELL PAD
 LATITUDE: 39.582170 LONGITUDE: -80.618879 (NAD 83)
 NORTHING: 4381453.30 EASTING: 532751.30 (UTM)

BIG 7 ASSOCIATED IMPROVEMENT
 LATITUDE: 39.582184 LONGITUDE: -80.618847 (NAD 83)
 NORTHING: 4381566.47 EASTING: 532637.64 (UTM)

SITE DISTURBANCE COMPUTATIONS

TOTAL AS-BUILT DISTURBANCE = 11.24 ACRES

GENERAL DESCRIPTION

THE WELL PAD, ASSOCIATED PIT, & ASSOCIATED IMPROVEMENT HAVE BEEN CONSTRUCTED
 TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

MISS Utility of West Virginia
 1-800-245-4848
 West Virginia State Law
 (Section XIV, Chapter 24-C)
 Requires that you call two business
 days before you dig in the state of
 West Virginia.
IT'S THE LAW!!

SHEET INDEX	
1-	COVER SHEET
2-	CONSTRUCTION NOTES
3-	INDEX SHEET
4-	WELL PAD AS-BUILT
5-	ASSOCIATED IMPROVEMENT AS-BUILT
6-	ASSOCIATED PIT AS-BUILT
7-	BIG 7 ACCESS ROAD
8-	BIG 7 ACCESS ROAD
9-	BIG 7 ACCESS ROAD
10-	BIG 7 PIT RECLAMATION
11-	BIG 7 ROAD PROFILE
12-	BIG 7 ROAD PROFILE
13-	CONSTRUCTION DETAILS
14-	CONSTRUCTION DETAILS
15-	CONSTRUCTION DETAILS
16-	CONSTRUCTION DETAILS

LEGEND	
EX INDEX CONTOUR	BIG FOOTPRINT
EX INTERMEDIATE CONTOUR	EDGE OF GRAVEL PAD
EX BOUNDARY LINE	EDGE OF BERM
EX ROAD EDGE OF GRAVEL/DIRT	WOODEN POST&RAIL FENCE
EX ROAD EDGE OF PAVEMENT	EX SUPER BUILT FENCE
EX ROAD CENTERLINE	EX REINFORCED BILT FENCE
EX DITCHLINE	BERM
EX CULVERT	GRAVEL
EX FENCELINE	SCOURING GROUND 2' CONTOURS
EX GATE	AS BUILT 2' CONTOURS
EX OVERHEAD UTILITY	PROPOSED BINDER & LOCATION
EX OVERHEAD UTILITY E/W	PROPOSED WELL LOCATIONS
EX POWER POLE	SPOT ELEVATIONS
EX C/T MARK	
EX TELEPHONE LINE	
EX GASLINE	
EX GASLINE B/W	
EX WATERLINE	PROP. ROCK CONSTRUCTION
EX MONITORING WELL	ENTRANCE
EX GAS WELL	LIMITS OF DISTURBANCE
EX TRENCH	HATCHING
EX REFERENCE TREE	EXISTING CULVERT
EX DELIMITED STREAM	
EX DELIMITED WETLAND	
EX STRUCTURE	
EX EARTHEN DIVERSION BERM	
SPOT ELEVATION	
EX PIPELINE MARKER	
EX BIP MAP	

REVISION DATE DESCRIPTION

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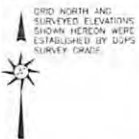
Professional Energy Consultants
 2000 S. MAIN ST. SUITE 200
 MARTINSBURG, WV 26151
 800-541-4646
 www.eqt.com

Professional Energy Consultants
 ENGINEERS
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 SCIENTISTS
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THIS DOCUMENT WAS PREPARED BY
 SAITH LAND SURVEYING, INC.
 FROM FIG. 1

BIG 7 AS-BUILT SITE PLAN
 THIS DOCUMENT WAS PREPARED BY
 SAITH LAND SURVEYING, INC.
 FROM FIG. 1

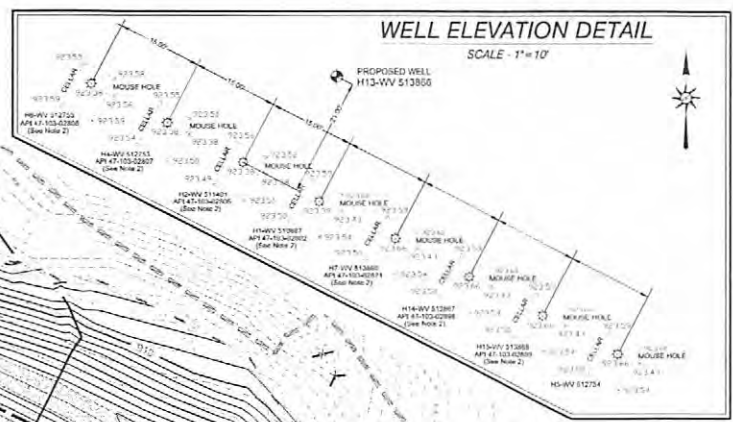
DATE: 03-25-2015
 SCALE: 1"=2000'
 DESIGNED BY: KJH
 FILE NO: 6246
 SHEET 1 OF 18



BIG 7 AS-BUILT SITE PLAN EQT PRODUCTION COMPANY

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47-103-02897, 47-103-02899, & 47-103-02898.
PROPOSED WELLS, H13 WVS13866

**WVDEP OOG
ACCEPTED AS-BUILT**
WJD 7 / 23 / 2015



REMOVE SUMP BREACH BERM,
AND EXTEND ROCK OUTLET
PROTECTION (D₅₀ = 6" MIN)

REMOVE SUMP BREACH BERM,
AND EXTEND ROCK OUTLET
PROTECTION (D₅₀ = 6" MIN)

TOTAL PAD AREA
2.7 ACRES ±

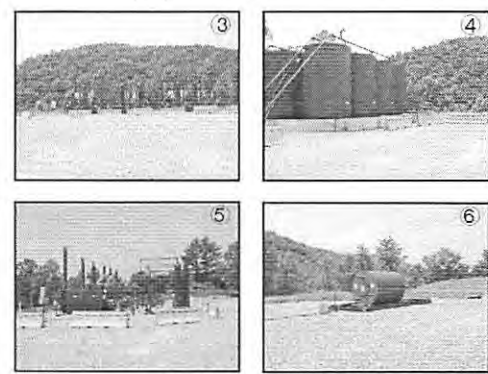
CEMETERY

STOCKPILE AREA

2:1 SLOPE

2:1 SLOPE

LAT: 39.582170
LON: -80.618629
(NAD 83)



SURVEY NOTES
1. AREA IS COMPUTED FROM THE AS-BUILT DIMENSIONS AS SHOWN FOR LIMITS OF DISTURBANCE BASED ON OUR INTERPRETATION AS SURVEYED ON 10-16-12, 12-07-12, 1-24-13, 3-13-13, 3-14-13, 3-15-13, 3-19-13, 3-21-13, 3-22-13, 5/20/14, & 3/16/15.
2. THE WELL LOCATIONS SHOWN HEREON FOR WVS13866, WVS13867, WVS13868, & WVS12754 WERE NOT VERIFIED BY FIELD SURVEY. THE WELL LOCATIONS SHOWN HEREON ARE BASED ON THE PROPOSED WELL PLAT COORDINATES. THE WELL ELEVATION DETAIL AND SCHEMATICS ARE BASED ON A PREVIOUS SURVEY.
3. THE CERTIFICATION OF THIS DRAWING APPLIES ONLY TO THE TOPOGRAPHY AND VOLUMES AS GENERATED FROM THE FIELD DATA OBTAINED AT THE TIME OF THE FIELD SURVEY 10-16-12, 12-07-12, 1-24-13, 3-13-13, 3-14-13, 3-15-13, 3-19-13, 3-21-13, & 3-22-13.



BY	
DESCRIPTION	
DATE	
REVISION	

EQT
Where energy meets innovation.

Professional Energy Consultants
ENVIRONMENTAL ENGINEERS
PROJECT SPECIALISTS
www.eqt.com
joh.hessell

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

**BIG 7 AS-BUILT
SITE PLAN**
THIS DOCUMENT WAS PREPARED BY:
SOUTH LAND SURVEYING, INC.
DATE: 03-25-2015
SCALE: 1" = 30'
DESIGNED BY: KJL
FILE: NO. 8246
SHEET: 5 OF 16