



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

PERMIT MODIFICATION APPROVAL

May 20, 2016

EQT PRODUCTION COMPANY
120 PROFESSIONAL PLACE
BRIDGEPORT, WV 26330

Re: Permit Modification Approval for API Number 8510085, Well #: WV 513762

Modified to include additional Leases

Oil and Gas Operator:

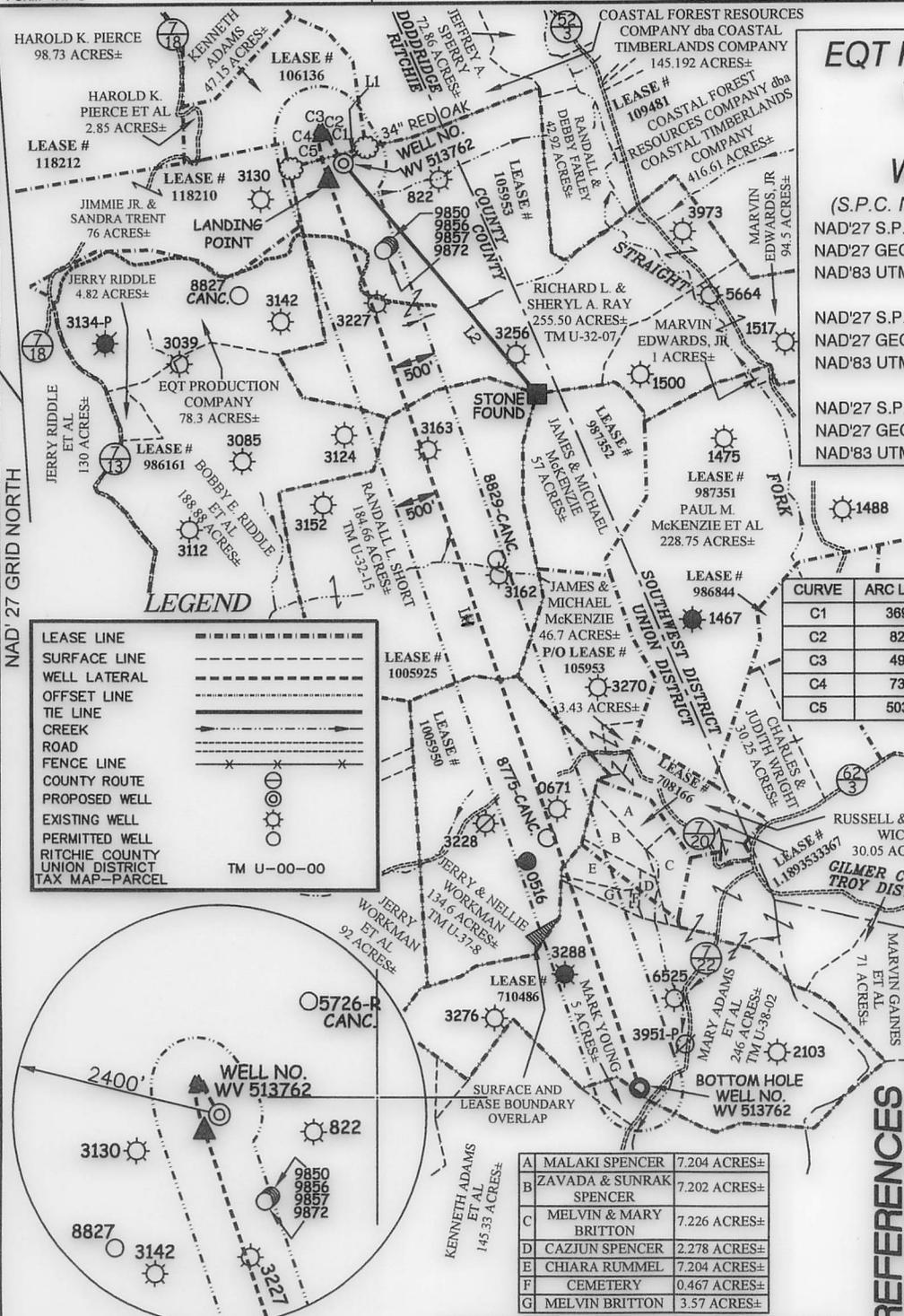
The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

for

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas



**EQT PRODUCTION COMPANY
W.M. ADAMS LEASE
402 ACRES±
WELL NO. WV 513762**

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

NAD'27 S.P.C.(FT) N. 233,079.15 E. 1,622,425.56
 NAD'27 GEO. LAT-(N) 39.132259 LONG-(W) 80.831046
 NAD'83 UTM (M) N. 4,331,476.85 E. 514,617.71

LANDING POINT

NAD'27 S.P.C.(FT) N. 232,891.60 E. 1,622,249.16
 NAD'27 GEO. LAT-(N) 39.131737 LONG-(W) 80.831658
 NAD'83 UTM (M) N. 4,331,418.81 E. 514,564.92

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 222,482.00 E. 1,625,809.70
 NAD'27 GEO. LAT-(N) 39.103304 LONG-(W) 80.818569
 NAD'83 UTM (M) N. 4,328,265.73 E. 515,702.54

WELL TIES		
ID	BEARING	DISTANCE
L1	N 55°09' E	322.35'
L2	S 39°56' E	3462.72'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	369.47'	6866.75'	N 30°45' W	369.43'
C2	82.39'	260.92'	N 40°15' W	82.05'
C3	49.08'	25.81'	S 81°05' W	42.01'
C4	73.28'	161.44'	S 06°41' W	72.65'
C5	503.72'	2190.54'	S 13°18' E	502.61'

LATERAL		
ID	BEARING	DISTANCE
L4	S 18°53' E	11001.69'

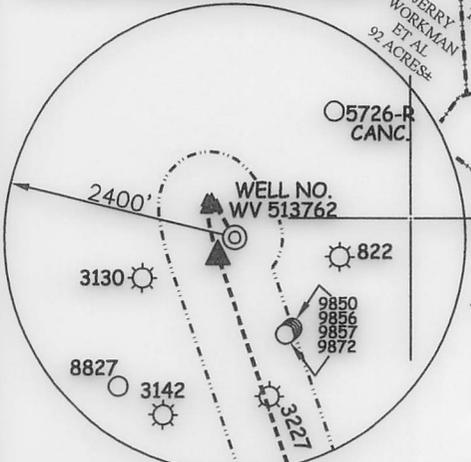
NOTES ON SURVEY

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

LEGEND

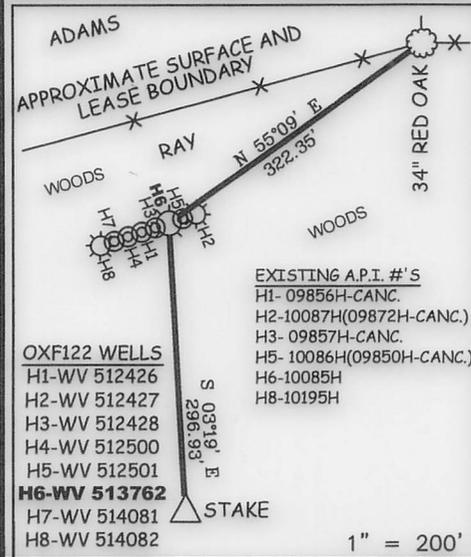
- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- FENCE LINE
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- RITCHIE COUNTY UNION DISTRICT TAX MAP-PARCEL

TM U-00-00



REFERENCE	ACREAGE
A MALAKI SPENCER	7.204 ACRES±
B ZAVADA & SUNRAK SPENCER	7.202 ACRES±
C MELVIN & MARY BRITTON	7.226 ACRES±
D CAZJUN SPENCER	2.278 ACRES±
E CHIARA RUMMEL	7.204 ACRES±
F CEMETERY	0.467 ACRES±
G MELVIN BRITTON	3.57 ACRES±

ROYALTY OWNERS		
ADELE McDOUGAL ET AL	53 AC.±	LEASE NO. 106136
ILENE BECKETT ET AL	183.16 AC.±	LEASE NO. 1005925
MARY J. SMITH ET AL	134 AC.±	LEASE NO. 1005950
JANE L. GARRISON ET AL	246 AC.±	LEASE NO. 710486



REFERENCES

- EXISTING A.P.I. #'S**
- H1- 09856H-CANC.
 - H2- 10087H(09872H-CANC.)
 - H3- 09857H-CANC.
 - H5- 10086H(09850H-CANC.)
 - H6- 10085H
 - H8- 10195H
- OXF122 WELLS**
- H1-WV 512426
 - H2-WV 512427
 - H3-WV 512428
 - H4-WV 512500
 - H5-WV 512501
 - H6-WV 513762**
 - H7-WV 514081
 - H8-WV 514082
- 1" = 200'

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.

SLS SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.

(304) 462-5634 WWW.SLSURVEYS.COM

VICTOR MOYERS
LICENSED
No. 849
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR

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

P.S. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE DECEMBER 12, 20 13

REVISED 07/02/15 & 05/18/16

OPERATORS WELL NO. WV 513762

API WELL NO. 47 - 085 - 10085
STATE COUNTY PERMIT MD

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 6811P513762R3
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 1,111'(PAD ELEVATION) WATERSHED STRAIGHT FORK
DISTRICT UNION COUNTY RITCHIE QUADRANGLE OXFORD 7.5'

SURFACE OWNER RICHARD L. & SHERYL A. RAY ACREAGE 255.50±
ROYALTY OWNER HAUGHT FAMILY TRUST ET AL ACREAGE 402±

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

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
ESTIMATED DEPTH TVD 6,461'

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

085-10085
MOD

WW-6A1
(5/13)

Operator's Well No. 513762

**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
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see attachment

**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

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

Well Operator: EQT Production Company
 By: Victoria J Roark
 Its: Permitting Supervisor

085-10085
MOD

WW-6A1 attachment

Operator's Well No.

513762

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
105953	<u>Haight Family Trust, et al (current royalty owner)</u> ✓ William Adams, et ux (original lessor) The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Production-Eastern States, Inc. Equitable Production Company	The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Production-Eastern States, Inc. Equitable Production Company EQT Production Company	***	LB29/244 LB55/362 LB126/473 LB201/253 LB234/830 DB281/346 Doddridge DB281/346 Doddridge
106136	<u>Adele McDougal, et al (current royalty owner)</u> ✓ Thomas Watson, R. A. Watson and M. G. Zinn (original lessor) The Philadelphia Co. of West Virginia Pittsburgh & West Virginia Gas Co. Equitable Gas Company Equitrans, Inc. Equitable Production-Eastern States, Inc. Equitable Production Company	The Philadelphia Co. of West Virginia Pittsburgh & West Virginia Gas Co. Equitable Gas Company Equitrans, Inc. Equitable Production-Eastern States, Inc. Equitable Production Company EQT Production Company	***	LB30/161 LB55/362 DB126/473 LB201/253 LB192/19 CB6/443 CB6/443
1005925	<u>Ilene Beckett, et al (royalty owner)</u> ✓ Delphia G. Taylor and George H. Taylor (original lessor) Hope Natural Gas Company Consolidated Gas Supply Corp. Consolidated Gas Transmission Corp. CNG Development Co. CNG Producing Co. Dominion Exploration & Production, Inc. Dominion Transmission, Inc. CONSOL Energy Holdings, LLC CONSOL Gas Co. CNX Gas Co., LLC	Hope Natural Gas Company Consolidated Gas Supply Corp. Consolidated Gas Transmission Corp. CNG Development Co. CNG Producing Co. Dominion Exploration & Production, Inc. Dominion Transmission, Inc. CONSOL Energy Holdings, LLC CONSOL Gas Co. CNX Gas Co., LLC EQT Production Co.	min pd 1/8	LB81/263 LB151/436 LB169/756 LB176/601 CB1096/124 Delaware CB82/07 Delaware LB251/621 LB251/648 CB6/576 CB6/634 LB279/333
1005950	<u>Mary J. Smith, et al (royalty owner)</u> ✓ James E. Spurgeon, et al (original lessor) Claron Dawson and C. Crane Sancho Oil and Gas Corp. Stephen D. Ward Antero Resources Appalachian Corp.	Claron Dawson and C. Crane Sancho Oil and Gas Corp. Stephen D. Ward Antero Resources Appalachian Corp. EQT Production Company	***	LB127/239 LB232/172 LB232/174 LB256/22 DB282/379
710486	<u>Jane L. Garrison, et al (royalty owner)</u> ✓ Lewis Garrison, et ux Carnegie Natural Gas Company Carnegie Production Company/USX Equitable Resources Inc. Equitable Production Co.	Carnegie Natural Gas Company Carnegie Production Company Equitable Resources Inc. Equitable Production Co. EQT Production Company	***	LB42/4 LB228/859 See attached DB274/471 DB281/346 Doddridge

*** We will pay one-eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced, or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, or the oil or gas to be extracted, produced, or marketed from the well.

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WV Department of
Environmental Protection



085-10085

May 19, 2016

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

Re: OXF122, 513762, 47-085-10085
Union District, Ritchie County

Dear Mr. Martin,

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark', is written over the word 'Sincerely,'.

Vicki Roark
Permitting Supervisor-WV

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85-10085
MOD

May 19, 2016

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

Re: Modification of 47-085-10085

Dear Mr. Smith,

Enclosed is an updated mylar plat, and WW-6A1 form. The previous plat did not show the curve crossing an additional lease, however all coordinates and casing is correct. EQT would like to submit this adjusted plat for your files.

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'.

Vicki Roark
Permitting Supervisor-WV

Enc.

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Office of Oil and Gas

MAY 20 2016

WV Department of
Environmental Protection