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west virginia department of environmental protection

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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

Promoting a healthy environment.

05/20/2016

**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

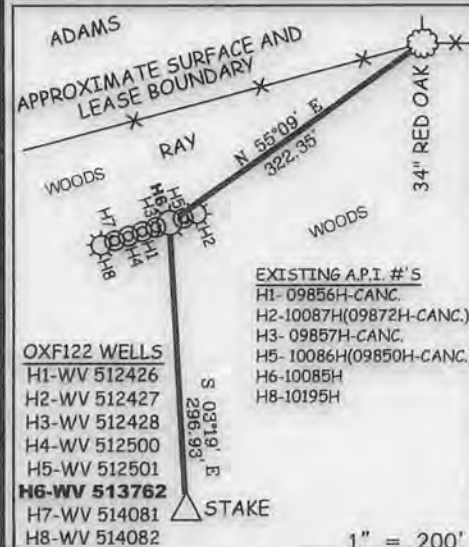
WELL TIES		
ID	BEARING	DISTANCE
L1	N 55°09' E	322.35'
L2	S 39°56' E	3462.72'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	369.47'	8886.75'	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 08°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.



**REFERENCES**

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



(+) 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 - OGS - 10085  
 STATE COUNTY PERMIT H6A MGD



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

**SLS**

SURVEYORS  
 ENGINEERS  
 ENVIRONMENTAL  
 PROJECT MGMT.

(304) 462-5634 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*

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 WASTE 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

05/20/2016

COUNTY NAME PERMIT

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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MAY 20 2016

WV Department of  
Environmental Protection

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  
MOM

WW-6A1 attachment

Operator's Well No.

513762

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>105953</u>	<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
<u>106136</u>	<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
<u>1005925</u>	<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
<u>1005950</u>	<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
<u>710486</u>	<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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Office of Oil and Gas  
MAY 20 2016  
WV Department of Environmental Protection  
05/20/2016



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,

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,

Vicki Roark  
Permitting Supervisor-WV

Enc.

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Office of Oil and Gas

MAY 20 2016

WV Department of  
Environmental Protection