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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

April 01, 2016

EQT PRODUCTION COMPANY  
120 PROFESSIONAL PLACE  
BRIDGEPORT, WA 26330


Re: Permit Modification Approval for API Number 9502255, Well #: 514462

### Modified Lease Lines and Wellbore Path

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.

04/08/2016

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

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

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

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

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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: Todd Klaner  
 Its: Permitting Manager

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<b><u>126101</u></b>	<b><u>George Birklein, et al (current royalty owner)</u></b>			
	WM. Blaine Underwood Et ux et al (original lessor)	Equitable Gas Co.	1/8	DB186/86
	Equitable Gas Co.	Equitrans, Inc.		DB274/471
	Equitrans, Inc./Equitable Gas Company/Equitable Resrouces, Inc.	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640
	Equitrans, L.P.	EQT Production Company		OG420/10
<b><u>126164</u></b>	<b><u>Robert D. Seckman, et al (current royalty owner)</u></b>			
	Retha Seckman, et al (original lessor)	Equitable Gas Co.		DB192/351
	Equitable Gas Co.	Equitrans, Inc.		DB274/471
	Equitrans, Inc./Equitable Gas Company/Equitable Resrouces, Inc.	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640
<b><u>126130</u></b>	<b><u>George Birklein, et al (current royalty owner)</u></b>		1/8	
	Donald Underwood, et al (original lessor)	Equitable Gas Company		LB191/313
	Equitable Gas Company	Equitrans, Inc		DB274/471
	Equitrans, Inc	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640
<b><u>126131</u></b>	<b><u>CNX Gas Co. (current royalty owner)</u></b>		1/8	
	Walton E. Smith, Jr., et ux (original lessor)	Equitable Gas Co.		DB211/555
	Equitable Gas Company	Equitrans, Inc		DB274/471
	Equitrans, Inc	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640
<b><u>126194</u></b>	<b><u>Barbara S. Stack, et al (current royalty owner)</u></b>		1/8	
	D.L. Haught et ux, et al (original lessor)	Equitable Gas Co.		195/465
	Equitable Gas Co.	Equitrans, Inc		274/471
	Equitrans, Inc./Equitable Gas Company/Equitable Resrouces, Inc.	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640
<b><u>126192</u></b>	<b><u>Sue E. Costilow (current royalty owner)</u></b>		1/8	
	Rex Underwood, et al (original lessor)	Equitable Gas Co.		DB195/472
	Equitable Gas Co.	Equitrans, Inc.		DB274/471
	Equitrans, Inc	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640
<b><u>126191</u></b>	<b><u>EQT Mineral Purchasing Group (current royalty owner)</u></b>		1/8	
	D. L. Haught, et al (original lessor)	Equitable Gas Co.		DB195/469
	Equitable Gas Co.	Equitrans, Inc.		DB274/471
	Equitrans, Inc./Equitable Gas Company/Equitable Resrouces, Inc.	Equitrans, L.P.		DB433/777
	Equitrans, L.P.	EQT Production Company		DB396/640

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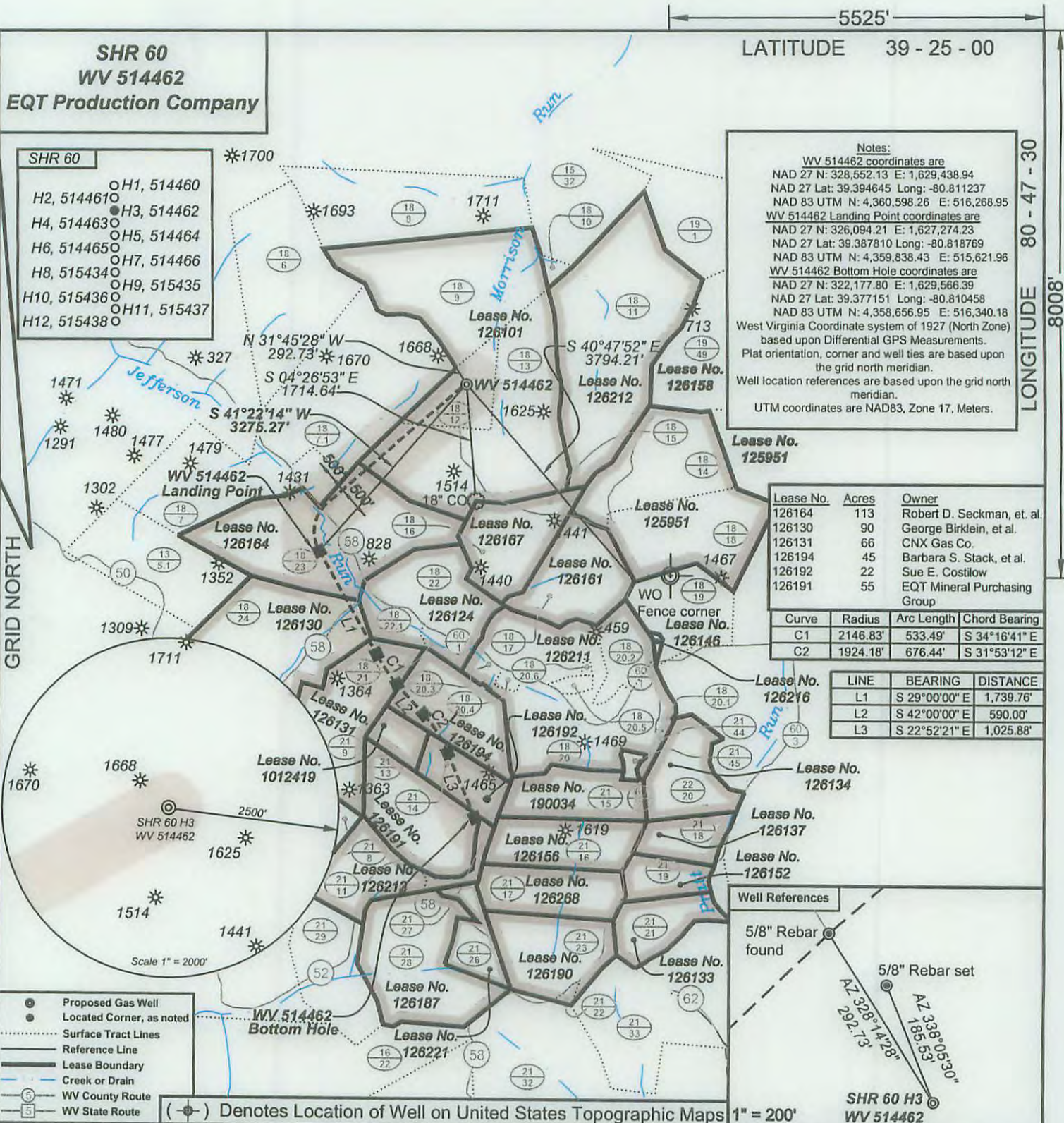
**SHR 60**  
**WV 514462**  
**EQT Production Company**

5525'  
LATITUDE 39 - 25 - 00

LONGITUDE 80 - 47 - 30  
8008'

- SHR 60**
- H1, 514460
  - H2, 514461
  - H3, 514462
  - H4, 514463
  - H5, 514464
  - H6, 514465
  - H7, 514466
  - H8, 515434
  - H9, 515435
  - H10, 515436
  - H11, 515437
  - H12, 515438

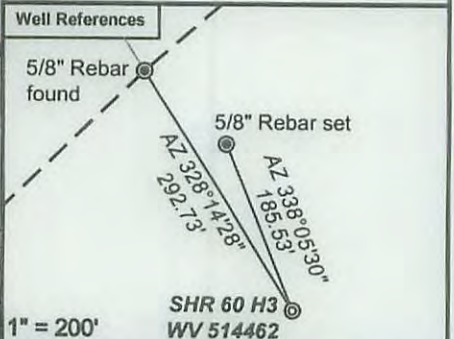
**Notes:**  
WV 514462 coordinates are  
NAD 27 N: 328,552.13 E: 1,629,438.94  
NAD 27 Lat: 39.394645 Long: -80.811237  
NAD 83 UTM N: 4,360,598.26 E: 516,268.95  
WV 514462 Landing Point coordinates are  
NAD 27 N: 326,094.21 E: 1,627,274.23  
NAD 27 Lat: 39.387810 Long: -80.818769  
NAD 83 UTM N: 4,359,838.43 E: 515,621.96  
WV 514462 Bottom Hole coordinates are  
NAD 27 N: 322,177.80 E: 1,629,566.39  
NAD 27 Lat: 39.377151 Long: -80.810458  
NAD 83 UTM N: 4,358,656.95 E: 516,340.18  
West Virginia Coordinate system of 1927 (North Zone)  
based upon Differential GPS Measurements.  
Plat orientation, corner and well ties are based upon  
the grid north meridian.  
Well location references are based upon the grid north  
meridian.  
UTM coordinates are NAD83, Zone 17, Meters.



Lease No.	Acres	Owner
126164	113	Robert D. Seckman, et. al.
126130	90	George Birklein, et. al.
126131	66	CNX Gas Co.
126194	45	Barbara S. Stack, et. al.
126192	22	Sue E. Costilow
126191	55	EQT Mineral Purchasing Group

Curve	Radius	Arc Length	Chord Bearing
C1	2146.83'	533.49'	S 34°16'41" E
C2	1924.18'	676.44'	S 31°53'12" E

LINE	BEARING	DISTANCE
L1	S 29°00'00" E	1,739.76'
L2	S 42°00'00" E	590.00'
L3	S 22°52'21" E	1,025.88'



- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

(●) Denotes Location of Well on United States Topographic Maps 1" = 200'



*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 Department of Environmental Protection.*

*Ben R. Singleton*  
P.S. 2092



FILE NO: 208-13  
DRAWING NO: 208-13 SHR 60 H3  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: March 31, 2016  
OPERATOR'S WELL NO.: 514462  
API WELL NO: 47-95-2255 H6A  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: Ground 1,018' Proposed 1,011' WATERSHED Morrison Run of McElroy Creek QUADRANGLE: Shirley  
DISTRICT: McElroy COUNTY: Tyler  
SURFACE OWNER: Vivian J. Wells, et al. ACREAGE: 35.38  
ROYALTY OWNER: George Birklein, et al. LEASE NO: 126101 ACREAGE: 240  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,596'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray  
ADDRESS: 115 Professional Place PO Box 280 Bridgeport, WV 26330