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

April 01, 2016

EQT PRODUCTION COMPANY
120 PROFESSIONAL PLACE
BRIDGEPORT, WV 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, Taylor Brewer
For

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas

WW-6A1
(5/13)

Operator's Well No. 514462

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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APR 0 [illegible] 2013
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

WW-6A1 attachment

Operator's Well No. 514462

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
126101	**George Birklein, et al (current royalty owner)**			
	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
126164	**Robert D. Seckman, et al (current royalty owner)**			
	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
126130	**George Birklein, et al (current royalty owner)**		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
126131	**CNX Gas Co. (current royalty owner)**		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
126194	**Barbara S. Stack, et al (current royalty owner)**		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
126192	**Sue E. Costilow (current royalty owner)**		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
126191	**EQT Mineral Purchasing Group (current royalty owner)**		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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WV Department of
Environmental Protection

SHR 60
WV 514462
EQT Production Company

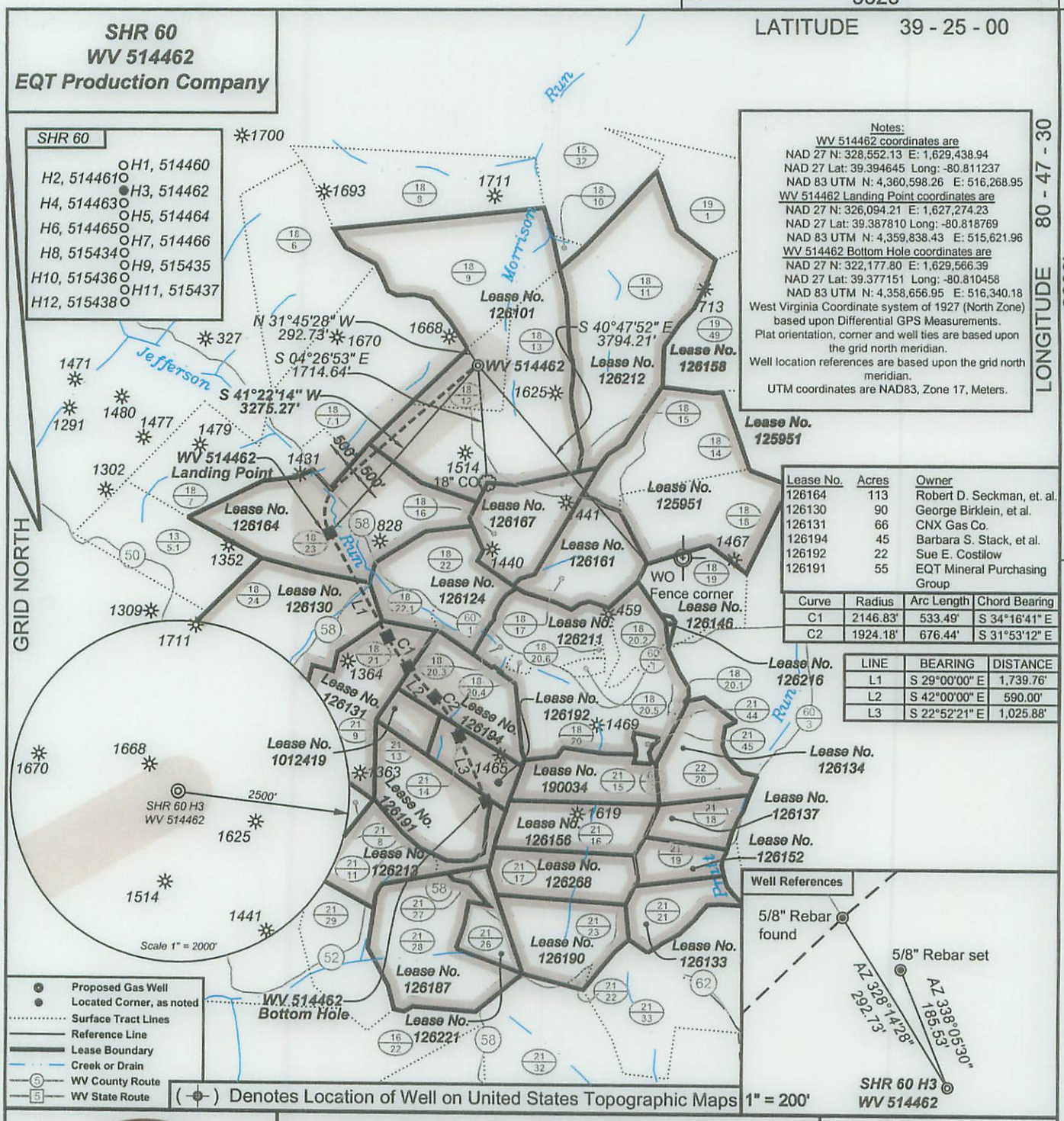
LATITUDE 39 - 25 - 00

LONGITUDE 80 - 47 - 30

5525'

8008'

GRID NORTH



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'

Well References
5/8" Rebar found
5/8" Rebar set
AZ 328°14'28" 292.73'
AZ 338°05'30" 185.53'
SHR 60 H3 WV 514462

ALLEGHENY SURVEYS, INC.

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

Ben R. Singleton LICENSED NO. 2092 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR
SEAL

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 20 16
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
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

DESIGNATED AGENT: Rex C. Ray
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330