



west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, February 12, 2024
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
400 WOODCLIFF DR.

CANONSBURG, PA 15317

Re: Permit Modification Approval for 12H
47-049-02510-00-00

Lateral Extension

EQT PRODUCTION COMPANY

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.

If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: 12H
Farm Name: JACKIE D & SHELIA L RADCLIFF
U.S. WELL NUMBER: 47-049-02510-00-00
Horizontal 6A New Drill
Date Modification Issued: 02/12/2024

Promoting a healthy environment.

02/16/2024

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Production Company 306686 Marion Mannington Glover Gap
Operator ID County District Quadrangle

2) Operator's Well Number: 12H Well Pad Name: Radcliff

3) Farm Name/Surface Owner: Jackie D. & Sheila L. Radcliff Public Road Access: CR 4/4

4) Elevation, current ground: 1,493' (built) Elevation, proposed post-construction: 1,493' (built)

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 7,916', 78', 2,593 psi

8) Proposed Total Vertical Depth: 7,916'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,902'

11) Proposed Horizontal Leg Length: 14,550'

12) Approximate Fresh Water Strata Depths: 460', 490', 621', 751'

13) Method to Determine Fresh Water Depths: Offset Wells - 049-02184, 049-00699, 049-30238

14) Approximate Saltwater Depths: 1,856', 2,127', 2,247'

15) Approximate Coal Seam Depths: 1,200'-1,206', 1,297'-1,304'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

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: _____

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18)

CASING AND TUBING PROGRAM

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.)/CTS
Conductor	26	New	A252 GR 3 Bare	85.6	40	40	50 ft ³ / CTS
Fresh Water	13 3/8	New	J-55	54.5	1354	1354	1230 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2721	2721	1050 ft ³ / CTS
Production	6	New	P-110	24	22902	22902	500' above intermediate casing
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	1000	18	Class A/L	1.04 - 1.20
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A/L	1.04 - 1.20
Coal							
Intermediate	9 5/8	12 3/8	0.352	3520	2816	Class A/L	1.04 - 1.20
Production	6	8 1/2	0.400	14580	11664	Class A/H/L	1.04 - 2.10
Tubing							
Liners							

*Kg Wellbore
2/2/24*

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 17.33 (built)

22) Area to be disturbed for well pad only, less access road (acres): 5.19 (built)

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One centralizer at the shoe and one spaced every 500’.
- Intermediate: Bow spring centralizers– One centralizer at the shoe and one spaced every 500’.
- Production: One solid body centralizer spaced every other joint from production casing shoe to landing point. One solid body centralizer spaced every joint from landing point to planned top of cement.

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives
Surface: Calcium Chloride. Used to speed the setting of cement slurries
Intermediate: Calcium Chloride. Used to speed the setting of cement slurries.
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

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25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

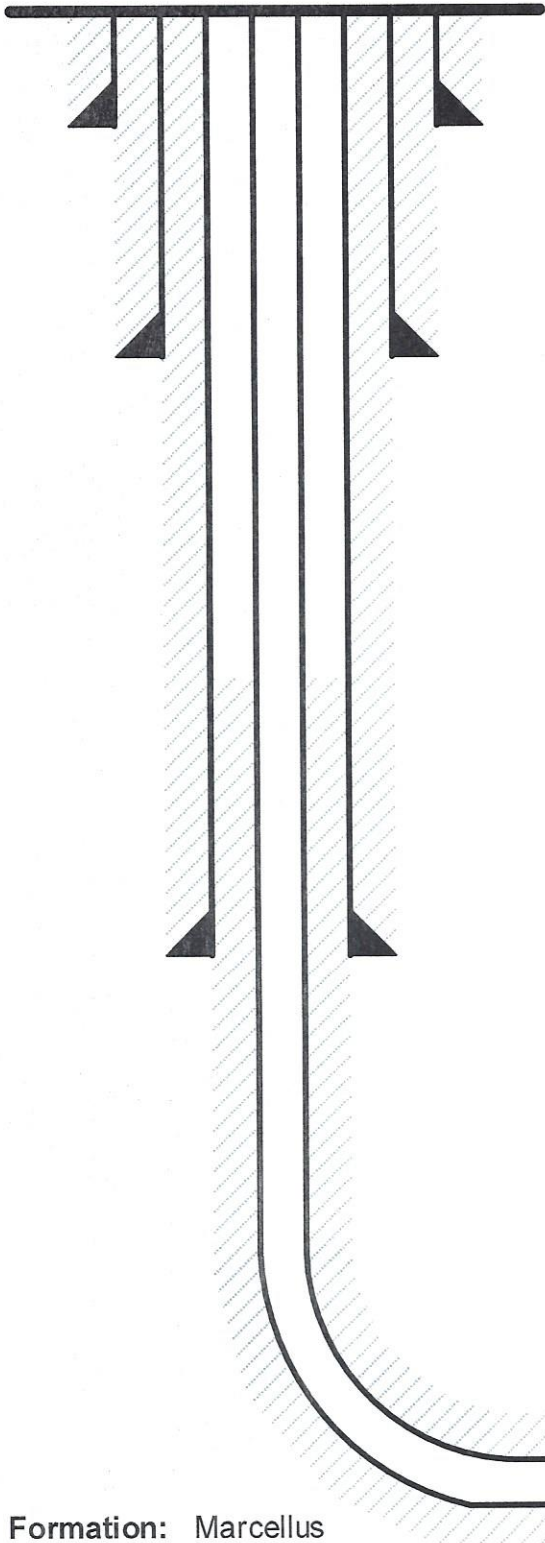
*Note: Attach additional sheets as needed.

EQT Production

Wellbore Diagram

Well: Radcliff 12H
Pad: Radcliff
Elevation: 1493' GL 1506' KB

County: Marion
State: West Virginia



Conductor @ 40'
26", 85.6, A252 GR3 Bare, cement to surface w/ Class A/L

Surface @ 1,354'
13-3/8", 54.5#, J-55, cement to surface w/ Class A/L

Intermediate @ 2,721'
9-5/8", 36#, J-55, cement to surface w/ Class A/L

Production @ 22,902' MD / 7,916' TVD
6", 24#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L

Formation: Marcellus

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EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: Radcliff
County: Marion

February 2, 2024

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Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Marion County, WV prior to hydraulic fracturing at the following EQT wells on the Radcliff pad: 4H, 6H, 8H, 10H, 12H, 14H, 16H and 18H.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

2. Reporting

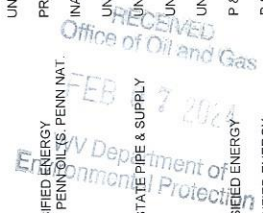
EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

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APL_UWI_Un	APL_UWI_12	ENWOperato	ENWWellSta	ENWWellTyp	InitialOpse	Latitude	Longitude	ElevationG	ElevationK	MD_FT	TVD_FT	WellName	WellSymbol
4704900888	47-049-00888-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.573547	-80.41966	1153	1183	3041	3041	KENDALL, ALFRED - HEIRS 3	OTHER-P & A
470491929	47-049-71929-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.586186	-80.44514	1336	0	0	0	L D FETTY	UNREPORTED-UNREPORTED
4704972001	47-049-72001-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.576741	-80.4176	1289	0	0	0	ALF KENDALL	UNREPORTED-UNREPORTED
4704971987	47-049-71987-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.590485	-80.42341	1381	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704901362	47-049-01362-00	CONSOLIDATION COAL COMPANY	P & A	OIL	CONSOLIDATION COAL COMPANY	39.549745	-80.42678	1098	1108	2823	2823	SNODGRASS, TOMMY L. 5262	OIL-P & A
4704900879	47-049-00879-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.572821	-80.42247	1336	1346	3048	3048	HAYES, J. L. - HEIRS 24	OTHER-P & A
4704971994	47-049-71994-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.569193	-80.4191	1097	0	0	0	Z E BATSON	UNREPORTED-UNREPORTED
4704900227	47-049-00227-00	DIVERSIFIED ENERGY	P & A	WATER	DIVERSIFIED PRODUCTION	39.575767	-80.42792	1224	1233	3077	3077	HAYES, SARAH E. 4	WATER-P & A
4704900712	47-049-00712-00	DIVERSIFIED ENERGY	P & A	OIL	DIVERSIFIED PRODUCTION	39.567741	-80.41741	1090	1099	2858	2858	BATSON, Z. E. & A. M. 7	OIL-P & A
4704900877	47-049-00877-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.552357	-80.42284	1274	1284	2988	2988	HAYES, J. L. & A. J. 19	OTHER-P & A
4704972002	47-049-72002-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.578627	-80.41947	1469	0	0	0	J W BATSON	UNREPORTED-UNREPORTED
4704971998	47-049-71998-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.574273	-80.42003	1144	0	0	0	ALF KENDALL	UNREPORTED-UNREPORTED
4704972181	47-049-72181-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.548003	-80.4206	1074	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704900876	47-049-00876-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.548246	-80.4245	1274	1283	2985	2985	MICHAEL, JEFFREY 5259	OTHER-P & A
4704900222	47-049-00222-00	DIVERSIFIED ENERGY	P & A	GAS	DIVERSIFIED PRODUCTION	39.574854	-80.42397	1416	1425	3146	3146	HAYES, J. L. - HEIRS 42	GAS-P & A
4704900869	47-049-00869-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.57137	-80.42078	1257	1267	3006	3006	BATSON, Z. E. & A. M. 1	OTHER-P & A
4704930220	47-049-30220-00	DELMAR OIL CO	INACTIVE COMPLETED	OIL & GAS	DELMAR	39.571671	-80.42584	1105	0	0	0	27	OIL & GAS-INACTIVE COMPLETED
4704930277	47-049-30277-00	MONROE, R. S.	UNREPORTED	UNREPORTED	MONROE, R. S.	39.54905	-80.4249	1281	0	0	0	A W KENDALL	UNREPORTED-UNREPORTED
4704972189	47-049-72189-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.553519	-80.42996	1043	0	0	0	J N MICHAEL	UNREPORTED-UNREPORTED
4704930701	47-049-30701-00	HANLEY, BEATY & BEATY	INACTIVE COMPLETED	GAS	HANLEY, BEATY & BEATY	39.5534	-80.42434	1255	0	0	0	NEWTON CUNNINGHAM 1	GAS-INACTIVE COMPLETED
4704971974	47-049-71974-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.577176	-80.42584	1433	0	0	0	SARAH HAYS	UNREPORTED-UNREPORTED
4704930536	47-049-30536-00	TRI-STATE PIPE COMPANY, THE	COMPLETED	OIL	TRI-STATE PIPE COMPANY, THE	39.561955	-80.42041	1326	0	0	0	AMELIA CROUSER 2	OIL-COMPLETED
4704930653	47-049-30653-00	HANLEY, BEATY, MCISAAC SOUTH PENN OIL (S. PENN NAT.	UNREPORTED	WATER	HANLEY, BEATY, MCISAAC	39.570076	-80.42434	1270	0	2925	0	S C THORN HEIRS	WATER-UNREPORTED
4704930328	47-049-30328-00	(GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.569308	-80.42172	1311	0	0	0	M M KENDALL 7	OIL-INACTIVE COMPLETED
4704970121	47-049-70121-00	(N/A)	COMPLETED	OIL	(N/A)	39.578051	-80.41622	1495	0	0	0	2	OIL-COMPLETED
4704972176	47-049-72176-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.548439	-80.41816	1229	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704930114	47-049-30114-00	CLIFTON OIL & GAS	COMPLETED	OIL	CLIFTON OIL & GAS	39.574136	-80.42116	1223	0	0	0	5	OIL-COMPLETED
4704902292	47-049-02292-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.550788	-80.41032	1323	1332	0	0	STRAIGHT, W.S. & JAS W. 5124	OTHER-P & A
4704930065	47-049-30065-00	HARRY SIBERT CONTRACT SOUTH PENN OIL (S. PENN NAT.	COMPLETED	OIL	HARRY SIBERT CONTRACT	39.579356	-80.41704	1294	0	0	0	ALFRED KENDALL 7	OIL-COMPLETED
4704930322	47-049-30322-00	(GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.56442	-80.41666	1210	0	0	0	M M KENDALL 2	OIL-INACTIVE COMPLETED
4704971931	47-049-71931-00	BP	UNREPORTED	UNREPORTED	BP	39.583272	-80.44626	1204	0	0	0	JACOB MURRAY	UNREPORTED-UNREPORTED
4704972193	47-049-72193-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.557583	-80.43165	1083	0	0	0	REBECCA WATSON	UNREPORTED-UNREPORTED
4704972186	47-049-72186-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.549407	-80.42622	1022	0	0	0	JOHN BOARD	UNREPORTED-UNREPORTED
4704901915	47-049-01915-00	DIVERSIFIED ENERGY SOUTH PENN OIL (S. PENN NAT.	PRODUCING	OIL & GAS	DIVERSIFIED PRODUCTION	39.571045	-80.41942	1112	1121	4110	4110	D HAYES 50	OIL & GAS-PRODUCING
4704930221	47-049-30221-00	(GAS)	INACTIVE COMPLETED	OIL & GAS	SOUTH PENN OIL (S PENN NAT GAS)	39.577616	-80.41928	1450	0	0	0	HOARD-BATSON 1	OIL & GAS-INACTIVE COMPLETED
4704972180	47-049-72180-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.5496	-80.41929	1087	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704930454	47-049-30454-00	INTERSTATE PIPE & SUPPLY	UNREPORTED	WATER	INTERSTATE PIPE & SUPPLY	39.564419	-80.41426	1093	0	3008	0	M M KENDALL	WATER-UNREPORTED
4704971972	47-049-71972-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.580369	-80.42603	1488	0	0	0	D WETZ	UNREPORTED-UNREPORTED
4704971986	47-049-71986-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.558163	-80.42453	1288	0	0	0	NANCY E HAYS	UNREPORTED-UNREPORTED
4704900885	47-049-00885-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.561936	-80.42378	1236	1246	3026	3026	HAYES, J. L. - HEIRS 34	OTHER-P & A
4704900886	47-049-00886-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.562807	-80.42472	1269	1279	3040	3040	HAYES, J. L. - HEIRS 36	OTHER-P & A
4704902370	47-049-02370-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.546269	-80.42192	1050	1059	0	0	HAYS, J.L. & A.J. 7701	OTHER-P & A
4704971971	47-049-71971-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.578917	-80.42715	1448	0	0	0	SARAH HAYS	UNREPORTED-UNREPORTED
4704971926	47-049-71926-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.586622	-80.44195	1116	0	0	0	L D FETTY	UNREPORTED-UNREPORTED



4704930327	SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.566016	-80.41928	1233	0	0	2999	0	0	0	0	0	M M KENDALL 6	OIL-INACTIVE COMPLETED
4704930329	SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.566319	-80.41714	1150	0	0	2271	0	0	0	0	0	M M KENDALL 8	OIL-INACTIVE COMPLETED
4704971985	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.568467	-80.41583	1254	0	0	0	0	0	0	0	0	W Z HAYS	UNREPORTED-UNREPORTED
4704972179	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.552502	-80.41722	1224	0	0	0	0	0	0	0	0	NOAH BAKER	UNREPORTED-UNREPORTED
4704970188	SOUTH PENN OIL (S. PENN NAT. GAS)	UNREPORTED	UNREPORTED	SOUTH PENN OIL (S PENN NAT GAS)	39.563408	-80.43321	1131	0	0	0	0	0	0	0	0	GEORGE WATSON	UNREPORTED-UNREPORTED
4704971985	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.56034	-80.4279	1190	0	0	0	0	0	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704971991	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.56202	-80.4219	1371	0	0	0	0	0	0	0	0	ZACK KENDATT 2	UNREPORTED-UNREPORTED
4704901040	NOUMENON CORPORATION, SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE PRODUCER	GAS	NOUMENON	39.556276	-80.43165	1120	1130	0	0	0	0	0	0	0	MICHAEL 1	GAS-INACTIVE PRODUCER
4704970021	(N/A)	UNREPORTED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.578776	-80.42322	1295	0	0	2523	0	0	0	0	1		OIL-UNREPORTED
4704971993	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.569338	-80.42041	1115	0	0	0	0	0	0	0	0	Z E BATSON	UNREPORTED-UNREPORTED
4704930222	(N/A)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.577181	-80.42153	1203	0	0	2356	0	0	0	0	0	HOARD-BATSON 4	OIL-INACTIVE COMPLETED
4704971930	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.585316	-80.44439	1333	0	0	0	0	0	0	0	0	JACOB MURRAY	UNREPORTED-UNREPORTED
4704930477	CENTURY OIL, INC.	UNREPORTED	OIL	CENTURY OIL	39.585641	-80.44234	1174	0	2997	2142	0	0	0	0	0	NANCY MURRAY	OIL-UNREPORTED
4704972182	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.546842	-80.42359	1243	0	0	0	0	0	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704972178	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.552067	-80.41527	1165	0	0	0	0	0	0	0	0	NOAH BAKER	UNREPORTED-UNREPORTED
4704970021	(N/A)	UNREPORTED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.578776	-80.42322	1295	0	0	2523	0	0	0	0	1		OIL-UNREPORTED
4704972187	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.546261	-80.42528	1100	0	0	0	0	0	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704902068	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.569826	-80.41963	1117	1126	0	0	0	0	0	0	0	CONSOLIDATION COAL CO 5045	OTHER-P & A
4704900228	DIVERSIFIED ENERGY	P & A	WATER	DIVERSIFIED PRODUCTION	39.576055	-80.42576	1348	1357	3291	3291	3291	0	0	0	0	HOARD/BATSON 6	WATER-P & A
4704971925	BP	UNREPORTED	UNREPORTED	BP	39.582546	-80.44064	1149	0	0	0	0	0	0	0	0	JACOB MURRAY	UNREPORTED-UNREPORTED
4704900700	CONSOL	UNREPORTED	OTHER	CONSOL GAS COMPANY	39.574861	-80.43589	1276	1286	0	0	0	0	0	0	0	AMOS, JOHN D. 3-90-S	OTHER-UNREPORTED
4704971983	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.565564	-80.42528	1421	0	0	0	0	0	0	0	0	BURCHINAL HRS	UNREPORTED-UNREPORTED
4704971973	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.577756	-80.42416	1388	0	0	0	0	0	0	0	0	J W BATSON	UNREPORTED-UNREPORTED
4704971975	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.576015	-80.42359	1392	0	0	0	0	0	0	0	0	J W BATSON	UNREPORTED-UNREPORTED
4704900699	DIVERSIFIED ENERGY	PRODUCING	OIL & GAS	DIVERSIFIED PRODUCTION	39.57724	-80.43987	1061	1070	5652	5652	0	0	0	0	0	AMOS, J. D. 2	OIL & GAS-PRODUCING
4704972003	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.579643	-80.41928	1411	0	0	0	0	0	0	0	0	J W BATSON	UNREPORTED-UNREPORTED
4704902193	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.544169	-80.42711	1024	1034	0	0	0	0	0	0	0	MICHAEL JEFFERY H. 5428	OTHER-P & A
4704900883	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.568612	-80.42622	1329	1339	3125	3125	3125	0	0	0	0	HAYES, J. L. & G. HAYES 31	OTHER-P & A
4704970103	DELMAR OIL CO	COMPLETED	DRY HOLE	DELMAR	39.547858	-80.42659	1071	0	2826	0	0	0	0	0	0	HAYES, A J 15	DRY HOLE-COMPLETED
4704972184	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.547278	-80.41929	1166	0	0	0	0	0	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704970017	(N/A)	UNREPORTED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.577906	-80.41966	1444	0	2675	0	0	0	0	0	0	JOHN BAKER	OIL-UNREPORTED
4704902205	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.546832	-80.42266	1008	1017	0	0	0	0	0	0	0	SNODGRASS, TOMMY L. 5256	OTHER-P & A
4704902233	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.547426	-80.4209	1068	1077	0	0	0	0	0	0	0	MICHAEL JEFFREY 5254	OTHER-P & A
4704971979	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.568919	-80.4339	1367	0	0	0	0	0	0	0	0	ARAH CAMPBELL	UNREPORTED-UNREPORTED
4704972190	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.553663	-80.43315	1039	0	0	0	0	0	0	0	0	J N MICHAEL	UNREPORTED-UNREPORTED
4704970153	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.572106	-80.44027	1064	0	0	0	0	0	0	0	1		UNREPORTED-UNREPORTED
4704900413	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.589474	-80.42574	1218	1228	0	0	0	0	0	0	0	BAKER, J. R. 271	OTHER-P & A
4704970035	FREEHOLD OIL & GAS	UNREPORTED	GAS	FREEHOLD OIL & GAS	39.544699	-80.42734	1015	0	2978	0	0	0	0	0	0	B B BOARD	GAS-UNREPORTED
4704971981	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.570064	-80.42491	1333	0	0	0	0	0	0	0	0	WILLIAM HAYS HRS	UNREPORTED-UNREPORTED
470497030480	BRITTON & BURGE	UNREPORTED	OIL	BRITTON & BURGE	39.575586	-80.42566	1350	0	3108	3050	0	0	0	0	0	SARAH E HAYS	OIL-UNREPORTED
4704972188	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.551196	-80.4294	1197	0	0	0	0	0	0	0	0	J N MICHAEL	UNREPORTED-UNREPORTED
4704971984	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.561646	-80.4279	1304	0	0	0	0	0	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
470497030326	SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.562825	-80.42191	1312	0	3066	0	0	0	0	0	0	M M KENDALL 5	OIL-INACTIVE COMPLETED
4704971970	BP	UNREPORTED	UNREPORTED	BP	39.577321	-80.43165	1331	0	0	0	0	0	0	0	0	JACOB L MURRAY	UNREPORTED-UNREPORTED
4704971982	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.567597	-80.42865	1347	0	0	0	0	0	0	0	0	REBECCA WATSON	UNREPORTED-UNREPORTED

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4704871980	47-049-71980-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.571225	-80.42753	1210	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704800871	47-049-00871-00	DIVERSIFIED ENERGY	OTHER	DIVERSIFIED PRODUCTION	P & A	OTHER	39.568032	-80.41966	1209	1219	3184	3184	BATSON, Z. E. & A. M. 4	OTHER-P & A
4704830113	47-049-30113-00	HOPE CONSTRUCTION & REFINING	WATER	HOPE CONSTRUCTION & REFINING	UNREPORTED	WATER	39.571961	-80.41779	1236	0	3015	3009	W Z HAYS HEIRS	WATER-UNREPORTED
4704872086	47-049-72086-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.55047	-80.40984	1338	0	0	0	J W STRAIGHT	UNREPORTED-UNREPORTED
4704800880	47-049-00880-00	DIVERSIFIED ENERGY	OTHER	DIVERSIFIED PRODUCTION	P & A	OTHER	39.573693	-80.42359	1370	1380	3167	3167	HAYES, J. L. - HEIRS 26	OTHER-P & A
4704872000	47-049-72000-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.57616	-80.41583	1267	0	0	0	ALF KENDALL	UNREPORTED-UNREPORTED
4704871978	47-049-71978-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.572532	-80.42959	1277	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704802383	47-049-02383-00	CONSOLIDATION COAL COMPANY	OTHER	CONSOLIDATION COAL COMPANY	P & A	OTHER	39.546162	-80.42576	1044	1053	0	0	MICHAEL, JEFFREY H. 5255	OTHER-P & A
4704800881	47-049-00881-00	DIVERSIFIED ENERGY ROSS AND WHARTON GAS	OTHER	DIVERSIFIED PRODUCTION	P & A	OTHER	39.571226	-80.4249	1178	1188	3130	3130	HAYES, J. L. - HEIRS 28	OTHER-P & A
4704801430	47-049-01430-00	COMPANY, INC.	OTHER	ROSSAWHARTON GAS CO	P & A	OTHER	39.566031	-80.42116	1339	1349	0	0	Z.E. BATSON 6	OTHER-P & A
4704872175	47-049-72175-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.548564	-80.4164	1220	0	0	0	J J HOLDEN	UNREPORTED-UNREPORTED
4704872084	47-049-72084-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.553954	-80.41078	1225	0	0	0	J W STRAIGHT	UNREPORTED-UNREPORTED
4704802232	47-049-02232-00	CONSOLIDATION COAL COMPANY	OTHER	CONSOLIDATION COAL COMPANY	P & A	OTHER	39.547931	-80.42288	1278	1287	0	0	MICHAEL, JEFFREY 5258	OTHER-P & A
4704871933	47-049-71933-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.579208	-80.44813	1489	0	0	0	NIMROD COLE	UNREPORTED-UNREPORTED
4704871988	47-049-71988-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.559614	-80.42172	1428	0	0	0	BURCHINAL HRS	UNREPORTED-UNREPORTED
4704871997	47-049-71997-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.572531	-80.41585	1409	0	0	0	W Z HAYS	UNREPORTED-UNREPORTED
4704871990	47-049-71990-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.561791	-80.41722	1140	0	0	0	J F CROUSER ET AL	UNREPORTED-UNREPORTED
4704871924	47-049-71924-00	BP	UNREPORTED	BP	UNREPORTED	UNREPORTED	39.584735	-80.43184	1102	0	0	0	JACOB MURRAY	UNREPORTED-UNREPORTED
4704872185	47-049-72185-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.550471	-80.42453	1284	0	0	0	BENJAMIN GRUBB	UNREPORTED-UNREPORTED
4704830203	47-049-30203-00	L.A. DILLENGER	UNREPORTED	L.A. DILLENGER	UNREPORTED	UNREPORTED	39.565726	-80.43615	1407	0	0	0	SARAH E HAYS	UNREPORTED-UNREPORTED
4704830323	47-049-30323-00	SOUTH PENN OIL (S. PENN NAT. GAS)	OIL	SOUTH PENN OIL (S PENN NAT GAS)	INACTIVE COMPLETED	OIL	39.561872	-80.42221	1329	0	0	3083	BURCHINAL HEIRS 2	OIL-INACTIVE COMPLETED
4704830343	47-049-30343-00	JENNINGS BROTHERS, E. H., COMPANY	GAS	JENNINGS BROTHERS, E. H., COMPANY	INACTIVE COMPLETED	GAS	39.567756	-80.42397	1298	0	0	3315	GAS-INACTIVE COMPLETED	GAS-INACTIVE COMPLETED
4704802093	47-049-02093-00	CONSOLIDATION COAL COMPANY	UNREPORTED	CONSOLIDATION COAL COMPANY	P & A	UNREPORTED	39.548109	-80.42699	1075	1085	2826	2826	DRY HOLE-P & A	UNREPORTED-UNREPORTED
4704830330	47-049-30330-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.567901	-80.41528	1152	0	0	2913	MICHAEL, JEFFREY H. 5257	UNREPORTED-UNREPORTED
4704800878	47-049-00878-00	DIVERSIFIED ENERGY	GAS	DIVERSIFIED ENERGY	PRODUCING	GAS	39.558453	-80.41565	1410	1420	3342	3342	M M KENDALL 9	OIL-INACTIVE COMPLETED
4704871913	47-049-71913-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.587783	-80.42903	1267	0	0	0	HAYES, J. L. & A. J. 20	UNREPORTED-UNREPORTED
4704871932	47-049-71932-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.582546	-80.44757	1376	0	0	0	S C BATSON	UNREPORTED-UNREPORTED
4704802194	47-049-02194-00	CONSOLIDATION COAL COMPANY	OTHER	CONSOLIDATION COAL COMPANY	P & A	OTHER	39.544802	-80.42739	1014	1023	0	0	SNODGRASS, DIANE 5320	OTHER-P & A
4704802271	47-049-02271-00	CONSOLIDATION COAL COMPANY	OTHER	CONSOLIDATION COAL COMPANY	P & A	OTHER	39.548072	-80.41846	1233	1242	0	0	HAYS, J.L. & A.J. #2 5141	OTHER-P & A
4704872173	47-049-72173-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.549309	-80.41265	1381	0	0	0	J J HOLDEN	UNREPORTED-UNREPORTED
4704872073	47-049-72073-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.569484	-80.41021	1296	0	0	0	HENRY STRAIGHT 3	UNREPORTED-UNREPORTED
4704802248	47-049-02248-00	CONSOLIDATION COAL COMPANY	OTHER	CONSOLIDATION COAL COMPANY	P & A	OTHER	39.546967	-80.41918	1225	1234	0	0	MICHAEL, JEFFREY 5139	OTHER-P & A
4704803535	47-049-30535-00	TRI-STATE PIPE COMPANY, THE	OIL	TRI-STATE PIPE COMPANY, THE	COMPLETED	OIL	39.563472	-80.42344	1360	0	0	3122	KENDALL-BURCHINAL 1	OIL-COMPLETED
4704872174	47-049-72174-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.550181	-80.41119	1349	0	0	0	NOAH BAKER	UNREPORTED-UNREPORTED
4704871992	47-049-71992-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.568033	-80.42116	1286	0	0	0	Z E BATSON 6	UNREPORTED-UNREPORTED
4704800870	47-049-00870-00	DIVERSIFIED ENERGY	OTHER	DIVERSIFIED PRODUCTION	P & A	OTHER	39.57079	-80.42284	1120	1130	2908	2906	BATSON, Z. E. & A. M. 5	OTHER-P & A
4704871934	47-049-71934-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.562837	-80.45038	1401	0	0	0	NIMROD COLE	UNREPORTED-UNREPORTED
4704800218	47-049-00218-00	DIVERSIFIED ENERGY	GAS	DIVERSIFIED PRODUCTION	P & A	GAS	39.57203	-80.42013	1170	1179	3022	3022	KENDALL, ALFRED 12	GAS-P & A
4704830376	47-049-30376-00	SOUTH PENN OIL (S. PENN NAT. GAS)	OIL & GAS	SOUTH PENN OIL (S PENN NAT GAS)	INACTIVE COMPLETED	OIL & GAS	39.577181	-80.42491	1435	0	0	3232	J W BATSON 5	OIL & GAS-INACTIVE COMPLETED
4704872177	47-049-72177-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.549745	-80.41797	1128	0	0	0	J J HOLDEN	UNREPORTED-UNREPORTED
4704803025	47-049-30325-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.564566	-80.41947	1250	0	0	2378	M M KENDALL 3	OIL-INACTIVE COMPLETED
4704800884	47-049-00884-00	DIVERSIFIED ENERGY	OTHER	DIVERSIFIED PRODUCTION	P & A	OTHER	39.572967	-80.42753	1184	1194	3041	3041	HAYES, J.L/ G. HAYES 33	OTHER-P & A
4704871996	47-049-71996-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	UNREPORTED	39.570355	-80.41722	1181	0	0	0	W Z HAYS	UNREPORTED-UNREPORTED
4704800882	47-049-00882-00	DIVERSIFIED ENERGY	OTHER	DIVERSIFIED PRODUCTION	P & A	OTHER	39.572677	-80.4249	1184	1204	3003	3003	HAYES, J. L. /G. HAYES 30	OTHER-P & A
4704870214	47-049-70214-00	BP	UNREPORTED	BP	UNREPORTED	UNREPORTED	39.580952	-80.44102	1076	0	0	0	NANCY L MURRAY	UNREPORTED-UNREPORTED

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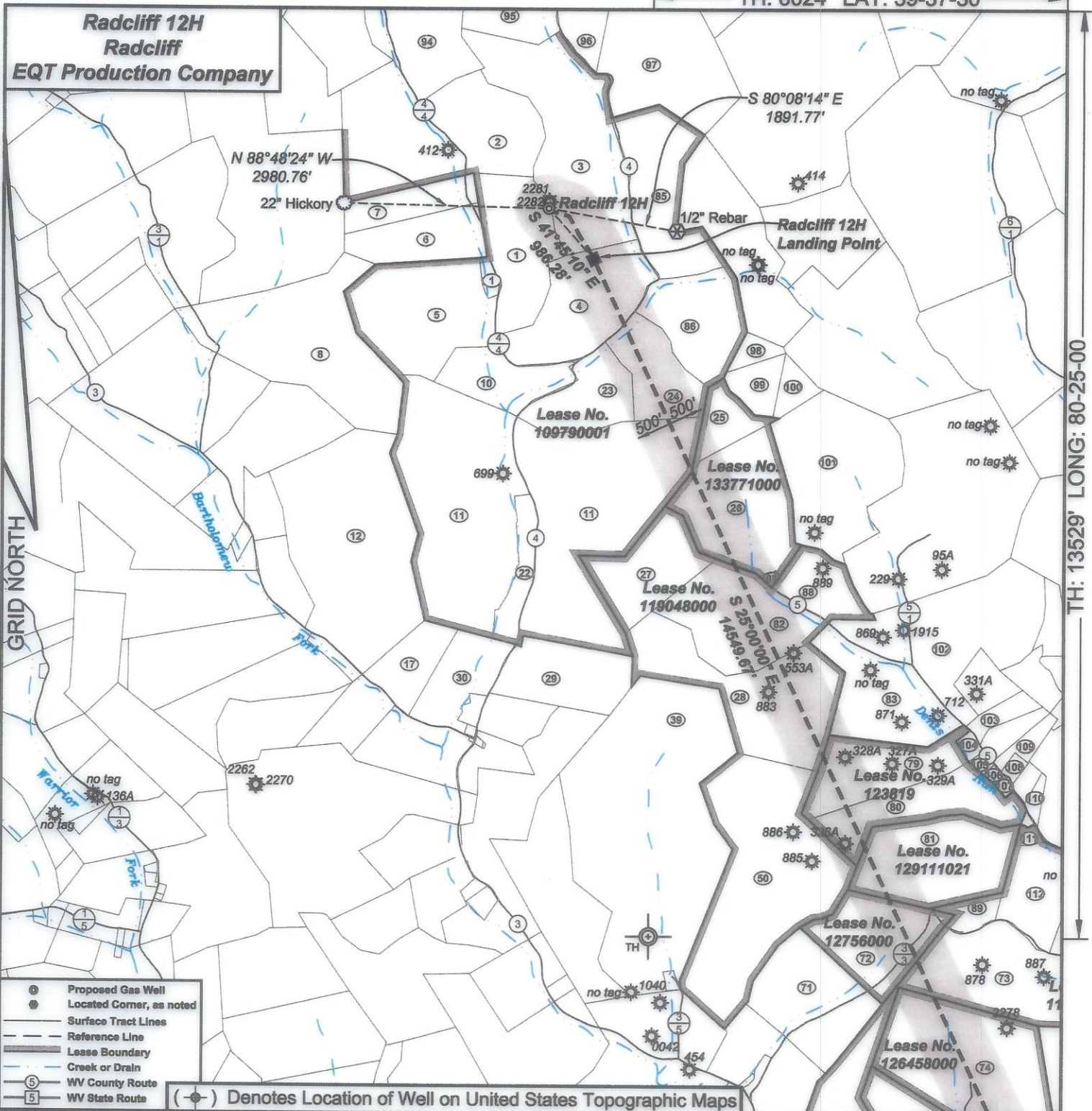
APL_UWL_Un	ENVOperator	ENVWellSta	Latitude	Longitude	PermitNumb	PermitStat	PermitType	WellName	WellType					
4704972183	47-049-72183-00 (N/A)	SOUTH PENN OIL (S. PENN NAT.	UNREPORTED	UNREPORTED	(N/A)	39.546842	-80.42247	1155	0	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704930382	47-049-30382-00 GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	UNREPORTED	39.576456	-80.42266	1215	0	0	3006	0	HOARD-BATSON 2	OIL-INACTIVE COMPLETED
4704971989	47-049-71989-00 (N/A)	UNREPORTED	UNREPORTED	UNREPORTED	(N/A)	39.560776	-80.4206	1394	0	0	0	0	J L CROUSER ET AL	UNREPORTED-UNREPORTED
4704902360	47-049-02360-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.546374	-80.42322	1198	1207	0	0	0	HAYS, J.L. & A.J. 5252	OTHER-P & A
4704900229	47-049-00229-00	COBHAM GAS INDUSTRIES, INC.	P & A	GAS	TRANS ENERGY	39.573135	-80.42034	1142	1151	3400	2936	0	KENDALL 13	GAS-P & A
4704900215	47-049-00215-00	DIVERSIFIED ENERGY	P & A	WATER	DIVERSIFIED PRODUCTION	39.568919	-80.4206	1109	1118	2936	2936	0	BATSON, ZEBEDEE 8	WATER-P & A
4704970101	47-049-70101-00	DELMAR OIL CO	UNREPORTED	OIL	DELMAR	39.549485	-80.42378	1326	0	3037	0	0	A J HAYES	OIL-UNREPORTED
4704971977	47-049-71977-00 (N/A)	UNREPORTED	UNREPORTED	UNREPORTED	(N/A)	39.574273	-80.42547	1346	0	0	0	0	SARAH HAYS	UNREPORTED-UNREPORTED

Permits	APL_UWL_Un	ENVOperator	ENVWellSta	Latitude	Longitude	PermitNumb	PermitStat	PermitType	WellName	WellType
	4704902184	WEST VIRGINIA LAND RESOURCES, INC.	P & A	39.585619	-80.427226	4704902184_2023-10-30	ACTIVE	PLUG BACK	JONES 2H	GAS
	4704902283	WEST VIRGINIA LAND RESOURCES, INC.	P & A	39.58575	-80.42716	4704902283_2023-10-30	ACTIVE	PLUG BACK	JONES 3H	GAS

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Environmental Protection

02/16/2024

TH: 6024' LAT: 39-37-30

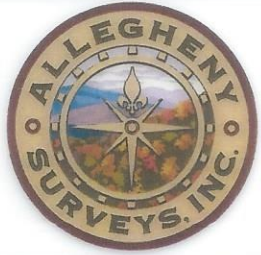


GRID NORTH

TH: 13529' LONG: 80-25-00

- ⊙ 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



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: 113-21
DRAWING NO: Radcliff 12H
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

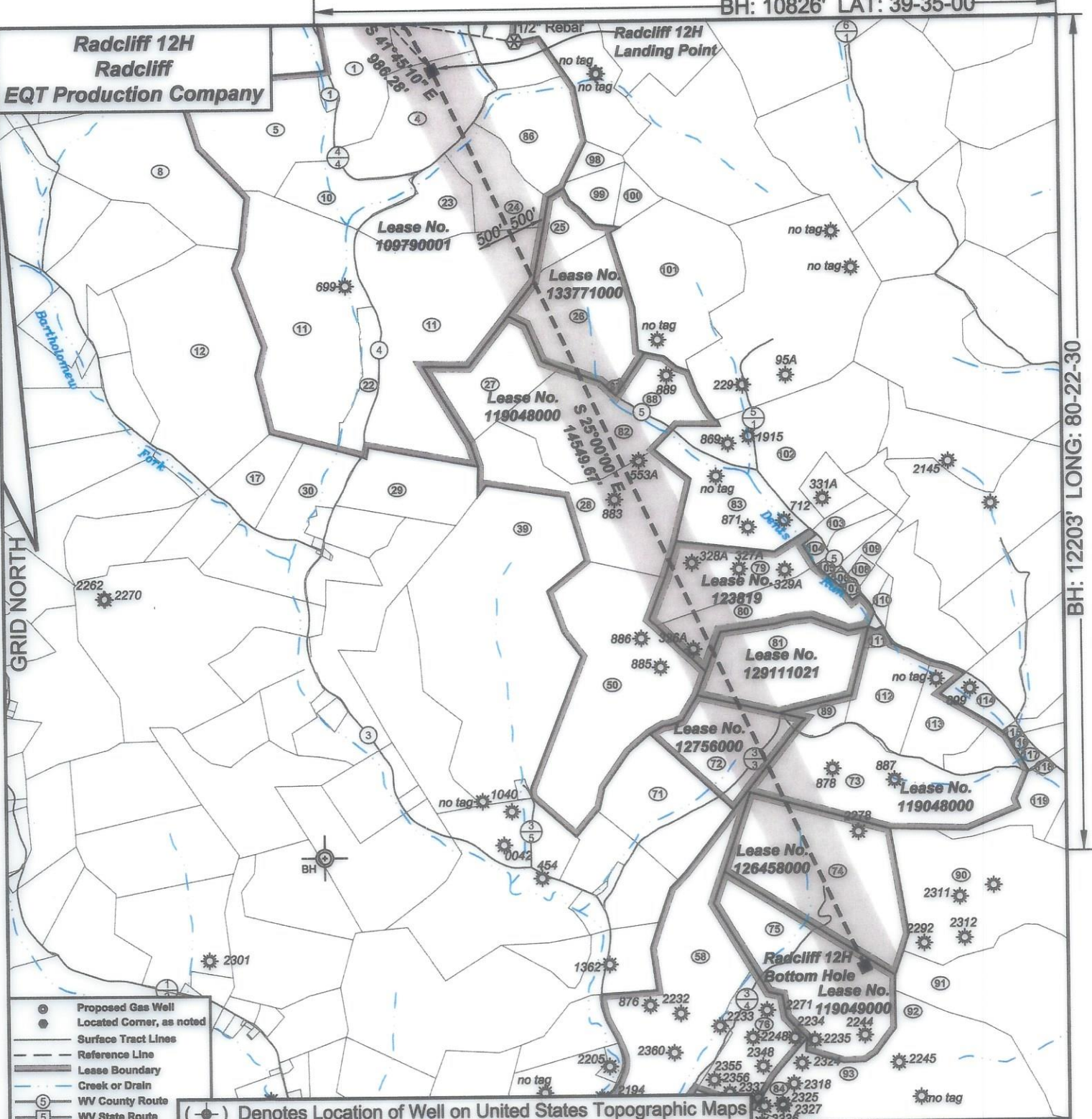
DATE: January 30 20 24
OPERATOR'S WELL NO.: Radcliff 12H
API WELL NO
47 - 049 - 02510
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1493' WATERSHED Bartholomew Fork QUADRANGLE: Glover Gap
DISTRICT: Mannington COUNTY: Marion
SURFACE OWNER: Jackie D. & Sheila L. Radcliff ACREAGE: 45.00
ROYALTY OWNER: Rebecca R. Shuttlesworth, et al. LEASE NO: 109790001 ACREAGE: 1090
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: 7916'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive
Canonsburg, PA 15317 Clarksburg, WV 26301

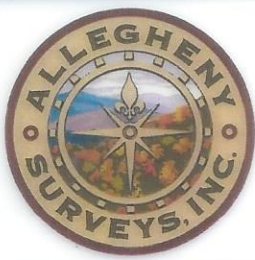
02/16/2024

Radcliff 12H
Radcliff
EQT Production Company



- ⊙ Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- ▬ Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑤ WV State Route

(⊙) Denotes Location of Well on United States Topographic Maps



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



SEAL

FILE NO: 113-21
 DRAWING NO: Radcliff 12H
 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: January 30 20 24
 OPERATOR'S WELL NO.: Radcliff 12H
 API WELL NO
 47 - 049 - 02510
 STATE COUNTY PERMIT

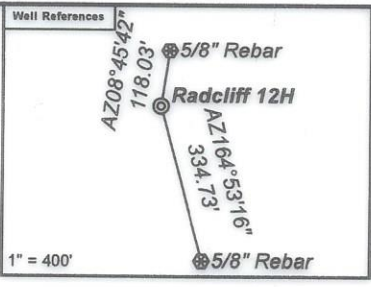
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1493' WATERSHED Bartholomew Fork QUADRANGLE: Glover Gap
 DISTRICT: Mannington COUNTY: Marion
 SURFACE OWNER: Jackie D. & Sheila L. Radcliff ACREAGE: 1090
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 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: 7916'

02/16/2024

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive
 Canonsburg, PA 15317 Clarksburg, WV 26301

Radcliff 12H
Radcliff
EQT Production Company

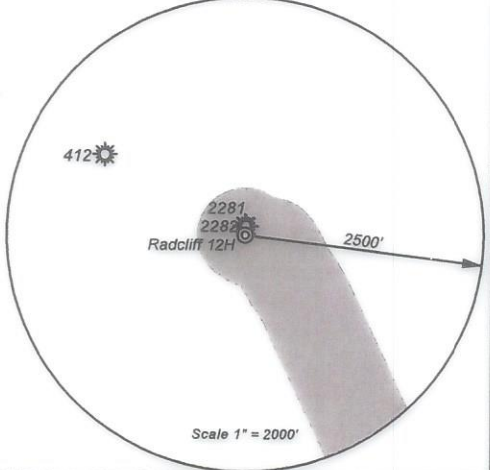
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	40	10.1	Marion	Mannington	Jackie D. & Sheila L. Radcliff	48.08
2	40	10	Marion	Mannington	Shelly L. Nelson	43.03
3	40	3	Marion	Mannington	Jason G. & Heather R. Stout	99.75
4	40	2	Marion	Mannington	Lula B. Knight	56.32
5	40	11	Marion	Mannington	Clarence W. Sweeney	63
6	40	12	Marion	Mannington	Jackie D. & Sheila L. Radcliff	27.35
7	40	13	Marion	Mannington	Shelly L. Nelson	19.75
8	40	18	Marion	Mannington	Nimrod Cole	92.12
10	40	23	Marion	Mannington	Sara M. Pascoe, et al.	26.41
11	39	4	Marion	Mannington	Coastal Forest Resources Company	245.722
12	40	22	Marion	Mannington	James & Natalie Kerns	113.25
17	44	14	Marion	Mannington	Charles D. & June Shaver	22.7
22	39	4.1	Marion	Mannington	Thomas R. & Joann McSorley	14.9
23	40	2.2	Marion	Mannington	James W. Boore	29.52
24	40	2.1	Marion	Mannington	Jason G. & Heather R. Stout	29.58
25	39	3	Marion	Mannington	Thomas G. & Theresa A. Jones	10.25
26	39	5	Marion	Mannington	Thomas G. & Theresa A. Jones	61.85
27	38	21.3	Marion	Mannington	David Maffield	37.292
28	38	21	Marion	Mannington	Dennis G. & Louise M. Hayes	74.885
29	38	1	Marion	Mannington	Casey B. & Jennifer J. Allender	37.25
30	44	11	Marion	Mannington	Charles D. & June Shaver	57.75
39	38	10	Marion	Mannington	Thomas E. & Andrea G. Ryan	176.15
50	38	11	Marion	Mannington	Yulia Nikolaeva	115
58	37	22	Marion	Mannington	Jeffrey H. Michael	166.83
71	38	14	Marion	Mannington	Nancy M. Riggs	52
72	38	14.1	Marion	Mannington	John A. Mayhue, Jr.	48
73	37	34	Marion	Mannington	James D. Atkinson	112.5
74	37	23	Marion	Mannington	Christine L. Fragale, et al.	95
75	37	24	Marion	Mannington	Jeffrey H. Michael	79
76	37	25	Marion	Mannington	Jeffrey H. Michael	33.75
79	38	19	Marion	Mannington	Dorothy D. Hendershot	38.246
80	38	19.4	Marion	Mannington	William E. Hendershot	39.702
81	38	15	Marion	Mannington	Michael & Julia A. Billie	58.67
82	38	21.2	Marion	Mannington	Douglas E. & Debra J. Maffield	54.669
83	38	20	Marion	Mannington	Dennis G. & Louise M. Hayes	59.24
84	37	28	Marion	Mannington	Harrison County Coal Resources Inc	91
85	26	16	Marion	Mannington	Jason G. & Heather R. Stout	48.12
86	39	2	Marion	Mannington	Lula B. Knight	43.39
87	39	6	Marion	Mannington	Thomas G. & Theresa A. Jones	0.65
88	38	21.1	Marion	Mannington	Ronald & Jean Hayes	21.55
89	38	16	Marion	Mannington	Michael & Julia A. Billie	7.65
90	37	31	Marion	Mannington	Marion County Coal Resources Inc.	109.2
91	37	30	Marion	Mannington	Marion County Coal Resources Inc.	107
92	37	29	Marion	Mannington	Marion County Coal Resources Inc.	89.25
93	37	28.1	Marion	Mannington	Marshall & Dick Cartright	10
94	40	9	Marion	Mannington	Karl A. Gouzd	35.32
95	40	4	Marion	Mannington	EBX-EM LLC	20.8
96	NA	NA	Marion	Mannington	Tax Info Not Available	NA
97	26	15	Marion	Mannington	Jason G. & Michelle R. Stout	91.9
98	39	15	Marion	Mannington	Jason G. & Michelle R. Stout	7.5
99	26	17	Marion	Mannington	Jason G. & Michelle R. Stout	57
100	39	16	Marion	Mannington	Jason G. & Michelle R. Stout	7.351
101	39	7	Marion	Mannington	Dennis Markel & John Pheasant	84
102	39	9	Marion	Mannington	Dennis Markel & John Pheasant	62.5
103	39	11.2	Marion	Mannington	Michael F. & Kerri Berthy	7.01
104	38	19.2	Marion	Mannington	Dorothy D. Hendershot	2.245
105	38	19.5	Marion	Mannington	Dorothy D. Hendershot	1.456
106	38	19.3	Marion	Mannington	Robin R. Smith & James W. Hendershot	1.01
107	38	19.1	Marion	Mannington	David A. Wright	1.17
108	39	11.1	Marion	Mannington	Kerry Orloff & Michael Berthy	1.92
109	39	11.3	Marion	Mannington	Kerri F. & Michael F. Berthy	9.11
110	39	11.4	Marion	Mannington	Lynn E. Sturm	2.73
111	38	18	Marion	Mannington	William D. Crouser	0.25
112	38	17	Marion	Mannington	Henry R. Gill, et al.	26.58
113	38	17.1	Marion	Mannington	Douglas L. & Kimberly J. Cyphers	24.8
114	36	3	Marion	Mannington	Douglas L. Cyphers	24.24
115	36	5	Marion	Mannington	Douglas L. Cyphers	1.55
116	36	6	Marion	Mannington	Douglas L. Cyphers	1.065
117	36	6.1	Marion	Mannington	Douglas L. & Kimberly J. Cyphers	1.935
118	37	33	Marion	Mannington	Dents Run Baptist Church	1.31
119	37	32	Marion	Mannington	Mark A. & Carrie A. Hendershot	14.31



Notes:
Radcliff 12H coordinates are
NAD 83 N: 397,609.42 E: 1,704,142.43
NAD 83 Lat: 39.587859 Long: -80.438043
NAD 83 UTM N: 4,382,186.02 E: 548,255.81
Radcliff 12H Landing Point coordinates are
NAD 83 N: 396,873.63 E: 1,704,799.21
NAD 83 Lat: 39.585858 Long: -80.435685
NAD 83 UTM N: 4,381,945.19 E: 548,459.65
Radcliff 12H Bottom Hole coordinates are
NAD 83 N: 383,687.15 E: 1,710,948.17
NAD 83 Lat: 39.549830 Long: -80.413393
NAD 83 UTM N: 4,377,959.02 E: 550,400.06
West Virginia Coordinate system of 1983 (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.

- Radcliff**
- Radcliff 20H ☉ ☉ Radcliff 17H
 - Radcliff 18H ☉ ☉ Radcliff 15H
 - Radcliff 16H ☉ ☉ Radcliff 13H
 - Radcliff 14H ☉ ☉ Radcliff 11H
 - Radcliff 12H ☉ ☉ Radcliff 9H
 - Radcliff 10H ☉ ☉ Radcliff 7H
 - Radcliff 8H ☉ ☉ Radcliff 5H
 - Radcliff 6H ☉ ☉ Radcliff 3H
 - Radcliff 4H ☉ ☉ Radcliff 19H
 - ☉ Radcliff 21H

Lease No.	Owner	Acres
109790001	Rebecca R. Shuttlesworth, et al.	1090
133771000	Bounty Minerals LLC, et al.	72.75
119048000	Lee and Hall Royalties, et al.	809
123819	XTO Energy, Inc.	77.948
129111021	Jefry Louis Huey, et al.	58.67
127156000	EQT Production Company, et al.	48.43125
126458000	Melania Higginbotham Arevalo de Brol, et al.	95
119049000	EQT Production Company	79



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



SEAL

FILE NO: 113-21
DRAWING NO: Radcliff 12H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: January 30 20 24
OPERATOR'S WELL NO.: Radcliff 12H
API WELL NO
47 - 049 - 02510
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1493' WATERSHED Bartholomew Fork QUADRANGLE: Glover Gap
DISTRICT: Mannington COUNTY: Marion
SURFACE OWNER: Jackie D. & Sheila L. Radcliff ACREAGE: 46.00
ROYALTY OWNER: Rebecca R. Shuttlesworth, et al. LEASE NO: 109790001 ACREAGE: 1090
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: 7916'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive
Canonsburg, PA 15317 Clarksburg, WV 26301

02/16/2024

**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

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: John Zavatchan

Its: Project Specialist - Permitting

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Office of Oil and Gas
FEB 07 2024

WV Department of
Environmental Protection

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
✓ <u>109790001</u>	<u>Rebecca R. Shuttlesworth, et al.</u> Rebecca R. Shuttlesworth, Power of Attorney for Robert Lee Gwinn, Sr., Widower American Shale Development, Inc. Republic Partners VIII, LLC Republic Energy Ventures, LLC American Shale Development, Inc.	1090 ac	American Shale Development, Inc. Republic Energy Ventures, LLC Republic Partners VIII, LLC EQT Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1117/329 AB 47/469 AB 51/525 DB 1228/1
✓ <u>133771000</u>	<u>Bounty Minerals LLC, et al.</u> Velma Clark, aka Velma M. Clark, widow American Shale Development, Inc. Republic Partners VIII, LLC Republic Energy Ventures, LLC American Shale Development, Inc.	72.75 ac	American Shale Development Inc. Republic Energy Ventures, LLC Republic Partners VIII, LLC EQT Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1151/442 AB 47/469 AB 51/525 DB 1228/1

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<u>119048000</u>	<u>Lee and Hall Royalties, et al.</u> J.L. Hays and A.J. Hays Delmar Oil Company E. H. Jennings Bros. Company	809 ac	Delmar Oil Company E. H. Jennings Bros. Company Quaker State Oil Refining Corporation	"at least 1/8th per WV Code 22-6-8"	DB 88/427 DB 354/341 DB 467/61 DB 754/403 AB 6/132
	Quaker State Oil Refining Corporation		B-C Oil and Gas Company, Inc. Clarence W. Mutschelknaus, Sr. Clarence W. Mutschelknaus, Jr. Jacklyn A. Rominger William R. Johnson	AB 12/293	
	B-C Oil and Gas Company, Inc. Clarence W. Mutschelknaus, Sr. Clarence W. Mutschelknaus, Jr. Jacklyn A. Rominger William R. Johnson		Cobham Gas Industries, Inc. Prima Oil Company Trans Energy, Inc.	AB 15/339 AB 27/258 AB 30/165	
	Prima Oil Company, Inc. Trans Energy, Inc. American Shale Development, Inc. Republic Partners VIII, LLC		Republic Energy Ventures, LLC Republic Energy Ventures, LLC Trans Energy, Inc. American Shale Development, Inc. Republic Partners VIII, LLC	AB 39/953 AB 41/325 DB 1113/756 AB 43/420 AB 47/469	
	American Shale Development, Inc. Republic Partners VIII, LLC		EQT Production Company EQT Production Company	AB 51/525 DB 1228/1	
<u>123819</u>	<u>XTO Energy, Inc.</u> XTO Energy, Inc.	77.948 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1341/1004
<u>129111021</u>	<u>Jeffrey Louis Huey, et al.</u> Jeffrey Louis Huey and Janice Bethel Huey, husband and wife	58.67 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1279/980
<u>127156000</u>	<u>EQT Production Company, et al.</u> Republic Energy Ventures, LLC Republic Partners VIII, LLC	48.43125 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	BK 1200/1
<u>126458000</u>	<u>Melania Higginbotham Arevalo de Brol, et al.</u> Melania Higginbotham Arevalo de Brol and Cesar Atilio Brol Valencia, wife and husband	95 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1248/948

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Environmental Protection

"at least 1/8th per
WV Code 22-6-8"

DB 1238/478

EQT Production Company

79 ac

EQT Production Company
Dwight F. Garner

119049000

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WV Department of
Environmental Protection

02/16/2024



February 2, 2024

Via FedEx Overnight Delivery

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304

RE: Well Work Permit Application Modification – EXPEDITED REVIEW REQUESTED
Radcliff 12H
Permit Number 47-049-02510
Mannington District, Marion County, WV

WVDEP Recipient,

Attached please find the Well Work Permit Application for the well referenced above. You will find the following included with this submittal:

- Check in the amount \$2,500.00 for the permit fee and an additional \$5,000.00 for the expedited permit modification fee
- Completed WW-6B and supporting documents, approved by the O&G Inspector
- Well Location Plat
- Completed Form WW-6A1 and supporting documentation
- Hydraulic Fracturing Monitoring Plan
- Offset Well Map and Table
- Water Management Plan Modification Application

EQT is proposing to extend the lateral from the previously permitted length.

EQT Production trusts that if any portion of the submitted documentation is found to be inadequate for processing the permit, notification will be made to our Permitting department at your earliest convenience. It is EQT Production’s intent to cooperate fully to provide any additional requested documentation and clarification in a timely manner such that permitting proceeds in a predictable and logical manner.

Best Regards,

John Zavatchan
Project Specialist – Permitting
jzavatchan@eqt.com
724-746-9073

CK # 602146
\$5000⁰⁰
CK# 601414
\$2500⁰⁰

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