

APPROVED

WR-35
Rev. 8/23/13

NAME: [Signature]

Page ___ of ___

DATE: 3/3/17

State of West Virginia

Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work

API 47-017-06774 County Doddridge District West Union
 Quad West Union Pad Name WEU 8 Field/Pool Name _____
 Farm name Eleanor Meyer Well Number 514119
 Operator (as registered with the OOG) EQT Production Company
 Address 625 Liberty Ave. EQT Plaza, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
 Top hole Northing 4,346,745.92 Easting 516,399.39
 Landing Point of Curve Northing 4,346,682.49 Easting 515,275.18
 Bottom Hole Northing 4,347,913.97 Easting 514,469.71

Elevation (ft) 1071 GL Type of Well New Existing Type of Report Interim Final
 Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
 Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
 Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
 Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
 Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
 Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Synthetic Oil Base Mud 12.1ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophylic clay, quaternary ammonium clay gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose

Date permit issued 8/15/2016 Date drilling commenced 8/22/2016 Date drilling ceased 9/30/2016
 Date completion activities began 11/16/2016 Date completion activities ceased 11/23/2016
 Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug.

Freshwater depth(s) ft 129', 273', 304', 652' Open mine(s) (Y/N) depths _____
 Salt water depth(s) ft 1705', 1854' Void(s) encountered (Y/N) depths _____
 Coal depth(s) ft 223', 840' Cavern(s) encountered (Y/N) depths _____
 Is coal being mined in area (Y/N) N

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 N
 FEB 16 2017
 WV Department of
 Environmental Protection
 Reviewed by:

AX 04/14/2017
 RBDMs 04/12/17

API 47-017 - 06774 Farm name Eleanor Meyer Well number 514119

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	NEW	A-500 40LB/FT	NONE	Y
Surface	17.5"	13.375"	937'	NEW	J-55 54.5LB/FT	222'	Y
Coal							
Intermediate 1	12.375" & 12.25"	9.625"	2965'	NEW	A-500	983', 1783'	Y
Intermediate 2							
Intermediate 3							
Production	8.5"	5.5"	14088	NEW	P-110 20LB/FT	NONE	N
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	38	15.6	1.18	45	0	8+
Surface	CLASS A	847	15.6	1.20	1016	0	8
Coal							
Intermediate 1	CLASS A	358 / 765	14.2 / 15.6	1.24 / 1.18	1347	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A / CLASS H	1520 / 745	15.2 / 15.6	1.12 / 1.85	3080	2465'	72+
Tubing							

Drillers TD (ft) 14100' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 4899' MD

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____
CONDUCTOR- NONE
SURFACE- RAN AT LEAST EVERY 500' FEET
INTERMEDIATE- RAN AT LEAST EVERY 500' FEET
PRODUCTION- COMPOSITE BODY CENTRALIZERS RAN EVERY JOINT FROM SHOE TO KOP

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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WV Department of
Environmental Protection

API 47- 017 - 06774 Farm name Eleanor Meyer Well number 514119

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Logging Company PROFESSIONAL DIRECTIONAL
Address 103 SUDS RUN ROAD City MT. CLARE State WV Zip 26408

Cementing Company ALLIED SERVICES
Address 116 KIMMEL SCHOOL ROAD City SHELOCTA State PA Zip 15773

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04/14/2017

API 47-017-06774

WEU 8 Well #514119 Final Formations

Formation Name	Final Top MD (ftGL) (ft)	Final Top TVD (ft)	Final Btm MD (ftGL) (ft)	Final Btm TVD (ft)
SAND/SAHLE	1	1	223	223
COAL	223	223	230	230
SAND/SAHLE	230	230	840	840
COAL	840	840	843	843
SAND/SAHLE	843	843	1,448.00	1,447.90
MAXTON	1,448.00	1,447.90	1,804.00	1,803.80
BIG LIME	1,804.00	1,803.80	1,979.00	1,978.70
BIG INJUN	1,979.00	1,978.70	2,111.00	2,110.70
WEIR	2,111.00	2,110.70	2,386.00	2,385.60
GANTZ	2,386.00	2,385.60	2,473.00	2,472.60
BEREA	2,473.00	2,472.60	2,601.00	2,600.60
50F	2,601.00	2,600.60	2,655.00	2,654.50
30F	2,655.00	2,654.50	2,756.00	2,755.50
GORDON	2,756.00	2,755.50	2,805.00	2,804.50
FOURTH SAND	2,805.00	2,804.50	2,856.00	2,855.50
5TH	2,856.00	2,855.50	2,885.00	2,884.50
BAYARD	2,885.00	2,884.50	3,323.00	3,322.50
WARREN	3,323.00	3,322.50	3,504.00	3,500.90
SPEECHLEY	3,504.00	3,500.90	4,006.00	3,996.50
BALLTOWN A	4,006.00	3,996.50	4,193.00	4,183.40
BALLTOWN B	4,193.00	4,183.40	4,303.00	4,293.40
BRADFORD	4,303.00	4,293.40	4,544.00	4,534.30
RILEY	4,544.00	4,534.30	4,965.00	4,955.10
BENSON	4,965.00	4,955.10	5,213.00	5,193.50
ALEXANDER	5,213.00	5,193.50	5,990.00	5,672.70
RHINESTREET	5,990.00	5,672.70	6,280.00	5,771.70
SONYEA	6,280.00	5,771.70	8,351.00	6,469.30
MIDDLESEX	8,351.00	6,469.30	8,497.00	6,525.70
GENESEE	8,497.00	6,525.70	8,835.00	6,645.60
TULLY	8,835.00	6,645.60	8,903.00	6,664.40
MARCELLUS	8,903.00	6,664.40	14,100.00	6,670.70

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WV Department of
Environmental Protection

04/14/2017

WEU8
WV 514119
EQT PRODUCTION COMPANY

BOTTOM HOLE

11,528'

LATITUDE 39°17'30"

LONGITUDE 80°47'30"

4,105'

7,958'

TOP HOLE

**AS DRILLED COORDINATES
(WEU8 H7)**
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD27 S.P.C. (FT) N. 263,088.24 E. 1,629,108.56
 NAD27 GEO. LAT. (N) 39.269820 LONG. (W) 80.810061
 NAD83 UTM (M) N. 4,346,745.92 E. 516,399.39

LANDING POINT

NAD27 S.P.C. (FT) N. 292,941.73 E. 1,625,415.80
 NAD27 GEO. LAT. (N) 39.269269 LONG. (W) 80.823094
 NAD83 UTM (M) N. 4,348,682.49 E. 515,275.18

BOTTOM HOLE

NAD27 S.P.C. (FT) N. 297,027.07 E. 1,622,840.12
 NAD27 GEO. LAT. (N) 39.280360 LONG. (W) 80.832405
 NAD83 UTM (M) N. 4,347,913.97 E. 514,469.71

A	MARY NESLER	59.15 ACRES±	TM WU-14-20
B	MARY NESLER	16.4 ACRES±	TM WU-14-13
C	HOMER BROOKS ET AL	10.1 ACRES±	TM WU-14-15.6
D	CYNTHIA & HOMER BROOKS JR.	12.9 ACRES±	TM WU-14-15
E	CYNTHIA & HOMER BROOKS JR.	6.5 ACRES±	TM WU-14-11
F	LIVINGSTONE BEE	49 ACRES±	TM WU-14-12
G	RULEY CHURCH	1.9 ACRES±	TM WU-14-8
H	TRUSTEES OF M.P. CHURCH	3 ACRES±	TM WU-14-8.1
I	ELEANOR MEYER	349.75 ACRES±	TM WU-14-06
J	GREGORY CROSS ET AL	13.04 ACRES±	TM C-10-25.11
K	GREGORY CROSS ET AL	0.54 ACRES±	TM C-10-25.15
L	RYAN HOSKINSON	0.56 ACRES±	TM C-10-25.10
M	DAVID SCHWEINBRATEN ET AL	0.75 ACRES±	TM C-10-25.12
N	DAVID SCHWEINBRATEN ET AL	0.01 ACRES±	TM C-10-25.14
O	JILL MYERS	1 ACRES±	TM C-10-25.7
P	JOHN & SUE HILEMAN	LOTS 8 & 9	TM C-10-25.1
Q	DARRELL MOORE	0.26 ACRES±	TM C-10-25.13
R	JOHN & SUE HILEMAN	LOTS 2 & 3	TM C-10-25.2
S	DONALD & PAMELA SPONAUGLE	LOT 1	TM C-10-25.9
T	JOHN & SUE HILEMAN	LOT 7	TM C-10-25.5
U	DONALD & PAMELA SPONAUGLE	LOT 6	TM C-10-25.6
V	PAULINE GREAVIER	13 ACRES±	TM C-10-32
W	RICHARD & ROBERTA TODD	2.18 ACRES±	TM C-10-25.16
X	DARRELL MOORE	28.16 ACRES±	TM C-10-25
Y	DARRELL MOORE	125 ACRES±	TM C-10-20
Z	DARRELL MOORE	15 ACRES±	TM C-10-21
AA	CARY & PATRICIA MEANS	32.63 ACRES±	TM C-10-22
BB	VIRGINIA CROSS	1.05 ACRES±	TM C-10-25.17
CC	JAMES & MARTHA MESSENGER	0.37 ACRES±	TM C-10-24.02
DD	MICHAEL SHEETS	1.10 ACRES±	TM C-10-24.01
EE	MICHAEL SHEETS	33.53 ACRES±	TM C-10-24
FF	MARK & CLARA MCGILL	53.50 ACRES±	TM C-10-23
GG	ANTHONY & LINDA ERVOLINA	1.48 ACRES±	TM WU-14-05
HH	SOLOMON TRUST	20 ACRES±	TM C-10-25
II	RALPH & JUDITH VALENTINE	104.62 ACRES±	TM C-10-04
JJ	ANTHONY MANCUSO	217.64 ACRES±	TM C-10-03
KK	ELLEN MARTIN	41.26 ACRES±	TM C-07-87
LL	ROBERT TOWNER ET AL	34.71 ACRES±	TM C-07-86
MM	MICHAEL & ROSALIND WEBB	75.43 ACRES±	TM C-07-85
NN	FOUR LEAF LAND COMPANY	105.14 ACRES±	TM C-10-02
OO	CLARA & MARVIN BRISSEY ET AL	0.341 ACRES±	TM C-10-22.1
PP	FREDDIE MOORE ET UX	0.346 ACRES±	TM C-10-22.2
QQ	MARY TOWNER	0.351 ACRES±	TM C-10-22.5
RR	MARY TOWNER	0.58 ACRES±	TM C-10-22.4
SS	WAYMAN POSTLEHWAITE ET AL	0.364 ACRES±	TM C-10-22.3
TT	A.D. PERINE	2.91 ACRES±	TM C-14-1.2

ROYALTY OWNERS		
SUSAN J. CHILDERS ET AL	960 AC±	LEASE NO. 107497

NOTES ON SURVEY

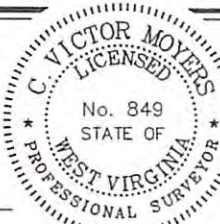
1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. CO. RT. 50/30 IN THIS AREA WAS FORMERLY KNOWN AS OLD US RT 50. PORTIONS OF WHICH WERE ALSO KNOWN AS OLD NORTHWEST TURNPIKE.
3. AS DRILLED INFORMATION PROVIDED BY EQT.



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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 MARCH 11, 20 16
 REVISED 07/14/16 & 10/12/16
 OPERATORS WELL NO. WV 514119
 API WELL NO. 47 - 017 - 06774H
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7746AD514119
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION:
 PAD ELEVATION 1,071' WATERSHED MIDDLE RUN AND ARNOLD CREEK
 DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER ELEANOR MEYER ACREAGE 349.75±
 ROYALTY OWNER EUGENE R. ARMSTRONG ET AL ACREAGE 95±
 PROPOSED WORK: LEASE NO. 107496
 DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 6,619'

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

COUNTY NAME PERMIT

04/14/2017

514119- 47-017-06774-0000 - Perforations

<i>Stage Number</i>	<i>Perforation Date</i>	<i>Top Perf Depth (ftKB)</i>	<i>Bottom Perf Depth (ftKB)</i>	<i>Number of Shots</i>	<i>Formation</i>
Initiation Sleeve	11/16/2016	14,062	14,088	10	MARCELLUS
1	11/17/2016	13,903	13,995	32	MARCELLUS
2	11/17/2016	13,753	13,875	40	MARCELLUS
3	11/17/2016	13,603	13,725	40	MARCELLUS
4	11/17/2016	13,453	13,575	40	MARCELLUS
5	11/17/2016	13,303	13,425	40	MARCELLUS
6	11/18/2016	13,153	13,275	40	MARCELLUS
7	11/18/2016	13,003	13,125	40	MARCELLUS
8	11/19/2016	12,853	12,975	40	MARCELLUS
9	11/19/2016	12,658	12,780	40	MARCELLUS
10	11/19/2016	12,508	12,630	40	MARCELLUS
11	11/19/2016	12,358	12,480	40	MARCELLUS
12	11/19/2016	12,208	12,330	40	MARCELLUS
13	11/19/2016	12,058	12,180	40	MARCELLUS
14	11/20/2016	11,908	12,030	40	MARCELLUS
15	11/20/2016	11,758	11,880	40	MARCELLUS
16	11/20/2016	11,608	11,730	40	MARCELLUS
17	11/20/2016	11,458	11,580	40	MARCELLUS
18	11/20/2016	11,308	11,430	40	MARCELLUS
19	11/20/2016	11,158	11,280	40	MARCELLUS
20	11/21/2016	11,008	11,130	40	MARCELLUS
21	11/21/2016	10,858	10,980	40	MARCELLUS
22	11/21/2016	10,708	10,830	40	MARCELLUS
23	11/21/2016	10,558	10,680	40	MARCELLUS
24	11/21/2016	10,408	10,530	40	MARCELLUS
25	11/22/2016	10,258	10,380	40	MARCELLUS
26	11/22/2016	10,108	10,230	40	MARCELLUS
27	11/22/2016	9,958	10,080	40	MARCELLUS
28	11/22/2016	9,808	9,825	40	MARCELLUS
29	11/22/2016	9,598	9,720	40	MARCELLUS
30	11/22/2016	9,448	9,570	40	MARCELLUS
31	11/23/2016	9,298	9,420	40	MARCELLUS
32	11/23/2016	9,148	9,270	40	MARCELLUS
33	11/23/2016	8,998	9,120	40	MARCELLUS

04/14/2017

514119- 47-017-06774-0000 - Stimulated Stages

<i>Stage Number</i>	<i>Stimulation Date</i>	<i>Ave Pump Rate (BPM)</i>	<i>Ave Treatment Pressure (PSI)</i>	<i>Max Breakdown Pressure (PSI)</i>	<i>ISIP (PSI)</i>	<i>Amount of Proppant (lbs)</i>	<i>Amount of Water (bbls)</i>	<i>Amount of Nitrogen/other (units)</i>
Initiation Sleeve	11/16/2016	n/a	n/a	8,588	4,714	0	1,531	0
1	11/16/2016	80	8,953	9,144	5,217	248,130	7,092	0
2	11/17/2016	81	8,918	9,215	4,942	249,606	6,217	0
3	11/17/2016	97	8,593	8,874	4,799	249,088	6,499	0
4	11/17/2016	95	8,635	8,958	5,022	251,473	6,582	0
5	11/17/2016	100	8,855	9,095	4,067	250,950	6,801	0
6	11/17/2016	101	8,754	8,990	4,887	251,720	6,579	0
7	11/18/2016	99	8,608	8,958	5,240	248,314	6,211	0
8	11/18/2016	n/a	n/a	9,315	5,209	62,940	2,705	0
8.1	11/18/2016	99	8,868	9,027	4,992	249,800	6,910	0
9	11/19/2016	99	8,502	8,863	4,965	248,511	6,154	0
10	11/19/2016	94	8,501	9,105	4,893	252,594	6,312	0
11	11/19/2016	87	8,606	9,169	4,295	249,442	6,086	0
12	11/19/2016	95	8,488	8,822	4,666	251,735	6,296	0
13	11/19/2016	100	8,605	8,848	4,677	248,260	6,027	0
14	11/19/2016	100	8,346	8,680	4,715	250,030	6,025	0
15	11/20/2016	101	8,605	9,081	4,565	248,469	5,793	0
16	11/20/2016	97	8,441	8,904	4,316	250,855	6,318	0
17	11/20/2016	100	8,561	8,809	5,137	248,830	6,078	0
18	11/20/2016	97	8,573	8,829	5,012	248,740	6,080	0
19	11/20/2016	100	8,301	8,487	4,649	248,690	6,003	0
20	11/20/2016	101	8,784	8,997	5,013	249,960	5,941	0
21	11/21/2016	100	8,489	8,752	5,048	246,715	5,870	0
22	11/21/2016	92	8,904	9,225	5,135	250,010	6,014	0
23	11/21/2016	100	8,300	8,613	5,703	252,221	6,151	0
24	11/21/2016	100	8,304	8,549	5,412	251,157	6,060	0
25	11/21/2016	100	7,956	8,166	4,859	250,503	5,729	0
26	11/22/2016	100	8,111	8,414	4,621	249,485	5,870	0
27	11/22/2016	100	8,035	8,321	5,220	187,200	5,779	0
28	11/22/2016	36	7,527	9,223	4,904	61,686	1,776	0
28.1	11/22/2016	99	8,246	8,612	5,222	249,725	6,425	0
29	11/22/2016	98	7,973	8,433	5,489	250,444	6,005	0
30	11/22/2016	100	8,054	8,247	4,526	251,150	5,863	0
31	11/23/2016	101	8,201	8,485	5,143	248,654	6,070	0
32	11/23/2016	100	7,867	8,852	4,852	250,670	6,076	0
33	11/23/2016	100	7,860	8,171	4,568	190,120	5,883	0

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04/14/2017

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/16/2016
Job End Date:	11/23/2016
State:	West Virginia
County:	Doddridge
API Number:	47-017-06774-00-00
Operator Name:	EQT Production
Well Name and Number:	514119
Latitude:	39.26982000
Longitude:	-80.81006100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,664
Total Base Water Volume (gal):	8,812,062
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	FTS International	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	89.48074	None
Other Chemical (s)	Listed Above	See Trade Name (s) List					
			Water	7732-18-5	50.00000	0.03291	

EMC Surf 200	ECM Supply	Enhancer					
			Water	7732-18-5	50.00000	0.03291	None
APB-1	FTS International	Gel Breaker					
				Listed Below			
MC MX 5-3886	Multi-Chem Group	Specialty Brine					
				Listed Below			
MC MX 8-2544	Multi-Chem Group	Live Culture - Nitrate Reducing Bacteria					
				Listed Below			
CS-500-SI	FTS International	Scale inhibitor					
				Listed Below			
Sand (Proppant)	FTS International	Proppant					
				Listed Below			
HVG-1 4.0	FTS International	Water gelling agent					
				Listed Below			
CI-150	FTS International	Acid corrosion inhibitor					
				Listed Below			
ECM FR NI 200	ECM Supply	Friction Reducing Agent					

				Listed Below			
Hydrochloric Acid (15%)	FTS International	Acidizing					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Silica Substrate	14808-60-7	100.00000	10.03617	None
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.10948	None
			Hydrochloric Acid	7647-01-0	15.00000	0.04074	None
			Copolymer of Two Propenamide	69418-26-4	30.00000	0.01974	
			Copolymer of Two Propenamide	69418-26-4	30.00000	0.01974	None
			Petroleum Distillate	64742-47-8	20.00000	0.01316	
			Petroleum Distillate	64742-47-8	20.00000	0.01316	None
			Sodium chloride	7647-14-5	100.00000	0.00992	
			Sodium chloride	7647-14-5	100.00000	0.00992	None
			Ethylene glycol	107-21-1	10.00000	0.00249	None
			Alcohols, C-12-16, Ethoxylated	68551-12-2	2.00000	0.00132	None
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00132	None
			Alcohols, C-12-16, Ethoxylated	68551-12-2	2.00000	0.00132	
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00132	
			Ammonium Chloride ((NH4)Cl)	12125-02-9	1.00000	0.00066	
			Ammonium Chloride ((NH4)Cl)	12125-02-9	1.00000	0.00066	None
			Sodium nitrate	7631-99-4	5.00000	0.00050	None
			Sodium nitrate	7631-99-4	5.00000	0.00050	
			Diethylene glycol monobutyl ether	112-34-5	30.00000	0.00021	
			Diethylene glycol monobutyl ether	112-34-5	30.00000	0.00021	None

			Isopropanol	67-63-0	30.00000	0.00015	None
			Organic amine resin salt	Proprietary	30.00000	0.00015	None
			Ethylene glycol	107-21-1	30.00000	0.00015	None
			Raffinates, Sorption Process	64741-85-1	55.00000	0.00006	None
			Raffinates, Sorption Process	64741-85-1	55.00000	0.00006	
			Guar gum	9000-30-0	50.00000	0.00005	
			Guar gum	9000-30-0	50.00000	0.00005	None
			Quaternary ammonium compound	Proprietary	10.00000	0.00005	None
			Dimethylformamide	68-12-2	10.00000	0.00005	None
			Aromatic aldehyde	Proprietary	10.00000	0.00005	None
			Quartz	14808-60-7	4.00000	0.00000	
			Quartz	14808-60-7	4.00000	0.00000	None
			Ammonium Persulfate	7727-54-0	95.00000	0.00000	None
			Ammonium Persulfate	7727-54-0	95.00000	0.00000	
			Isotridecanol, ethoxylated	9043-30-5	2.00000	0.00000	None
			Isotridecanol, ethoxylated	9043-30-5	2.00000	0.00000	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

WEU8
WV 514119
EQT PRODUCTION COMPANY

BOTTOM HOLE

11,528'

LATITUDE 39°17'30"

LONGITUDE 80°47'30"

4,106'

7,958'

A	MARY NESLER	59.15 ACRES±	TM WU-14-20
B	MARY NESLER	16.4 ACRES±	TM WU-14-13
C	HOMER BROOKS ET AL	0.1 ACRES±	TM WU-14-15.6
D	CYNTHIA & HOMER BROOKS JR.	2.9 ACRES±	TM WU-14-15
E	CYNTHIA & HOMER BROOKS JR.	6.5 ACRES±	TM WU-14-11
F	LIVINGSTONE BEE	49 ACRES±	TM WU-14-12
G	RULEY CHURCH	1.9 ACRES±	TM WU-14-8
H	TRUSTEES OF M.P. CHURCH	3 ACRES±	TM WU-14-8.1
I	ELEANOR MEYER	349.75 ACRES±	TM WU-14-06
J	GREGORY CROSS ET AL	3.04 ACRES±	TM C-10-25.11
K	GREGORY CROSS ET AL	5.54 ACRES±	TM C-10-25.15
L	RYAN HOSKINSON	0.56 ACRES±	TM C-10-25.10
M	DAVID SCHWEINEBRATEN ET AL	0.75 ACRES±	TM C-10-25.12
N	DAVID SCHWEINEBRATEN ET AL	0.01 ACRES±	TM C-10-25.14
O	JILL MYERS	1 ACRES±	TM C-10-25.7
P	JOHN & SUE HILEMAN	LOTS 8 & 9	TM C-10-25.1
Q	DARRELL MOORE	0.26 ACRES±	TM C-10-25.13
R	JOHN & SUE HILEMAN	LOTS 2 & 3	TM C-10-25.2
S	DONALD & PAMELA SPONAUGLE	LOT 1	TM C-10-25.9
T	JOHN & SUE HILEMAN	LOT 7	TM C-10-25.5
U	DONALD & PAMELA SPONAUGLE	LOT 6	TM C-10-25.6
V	PAULINE GREAVER	13 ACRES±	TM C-10-32
W	RICHARD & ROBERTA TODD	2.18 ACRES±	TM C-10-25.16
X	DARRELL MOORE	28.16 ACRES±	TM C-10-25
Y	DARRELL MOORE	125 ACRES±	TM C-10-20
Z	DARRELL MOORE	15 ACRES±	TM C-10-21
AA	CARY & PATRICIA MEANS	32.63 ACRES±	TM C-10-22
BB	VIRGINIA CROSS	1.05 ACRES±	TM C-10-25.17
CC	JAMES & MARTHA MESSENGER	0.37 ACRES±	TM C-10-24.02
DD	MICHAEL SHEETS	1.10 ACRES±	TM C-10-24.01
EE	MICHAEL SHEETS	33.53 ACRES±	TM C-10-24
FF	MARK & CLARA MCGILL	53.50 ACRES±	TM C-10-23
GG	ANTHONY & LINDA ERVOLINA	1.48 ACRES±	TM WU-14-05
HH	SOLOMON TRUST	20 ACRES±	TM C-10-05
II	RALPH & JUDITH VALENTINE	104.62 ACRES±	TM C-10-04
JJ	ANTHONY MANCUSO	217.64 ACRES±	TM C-10-03
KK	ELLEN MARTIN	41.26 ACRES±	TM C-07-87
LL	ROBERT TOWNER ET AL	34.71 ACRES±	TM C-07-86
MM	MICHAEL & ROSALIND WEBB	75.43 ACRES±	TM C-07-85
NN	FOUR LEAF LAND COMPANY	105.14 ACRES±	TM C-10-02
OO	CLARA & MARVIN BRISSEY ET AL	0.541 ACRES±	TM C-10-22.1
PP	FREDDIE MOORE ET UX	0.546 ACRES±	TM C-10-22.2
QQ	MARY TOWNER	0.551 ACRES±	TM C-10-22.5
RR	MARY TOWNER	0.58 ACRES±	TM C-10-22.4
SS	WAYMAN POSTLEHWAITE ET AL	0.564 ACRES±	TM C-10-22.3
TT	A.D. PERINE	2.91 ACRES±	TM C-14-1.2

AS DRILLED COORDINATES
(WEU8 H7)
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT) N. 283,088.24 E. 1,629,108.56
 NAD'27 GEO. LAT-(N) 39.269820 LONG-(W) 80.810061
 NAD'83 UTM (M) N. 4,346,745.92 E. 516,399.39

LANDING POINT

NAD'27 S.P.C.(FT) N. 282,941.73 E. 1,625,415.90
 NAD'27 GEO. LAT-(N) 39.269269 LONG-(W) 80.823094
 NAD'83 UTM (M) N. 4,346,682.49 E. 515,275.18

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 287,027.07 E. 1,622,840.12
 NAD'27 GEO. LAT-(N) 39.280380 LONG-(W) 80.832405
 NAD'83 UTM (M) N. 4,347,913.97 E. 514,469.71



ROYALTY OWNERS		
SUSAN J. CHILDERS ET AL	960 AC.±	LEASE NO. 107497

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.
2. CO. RT. 50/30 IN THIS AREA WAS FORMERLY KNOWN AS OLD US RT 50, PORTIONS OF WHICH WERE ALSO KNOWN AS OLD NORTHWEST TURNPIKE.
3. AS DRILLED INFORMATION PROVIDED BY EQT.

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (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*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE MARCH 11, 20 16
 REVISED 07/14/16 & 10/12/16
 OPERATORS WELL NO. WV 514119
 API WELL NO. 47 - 017 - 06774H
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7746AD514119
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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: PAD ELEVATION 1,071' WATERSHED MIDDLE RUN AND ARNOLD CREEK
 DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER ELEANOR MEYER ACREAGE 349.75±
 ROYALTY OWNER EUGENE R. ARMSTRONG ET AL ACREAGE 95±

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 6,619'

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

COUNTY NAME PERMIT

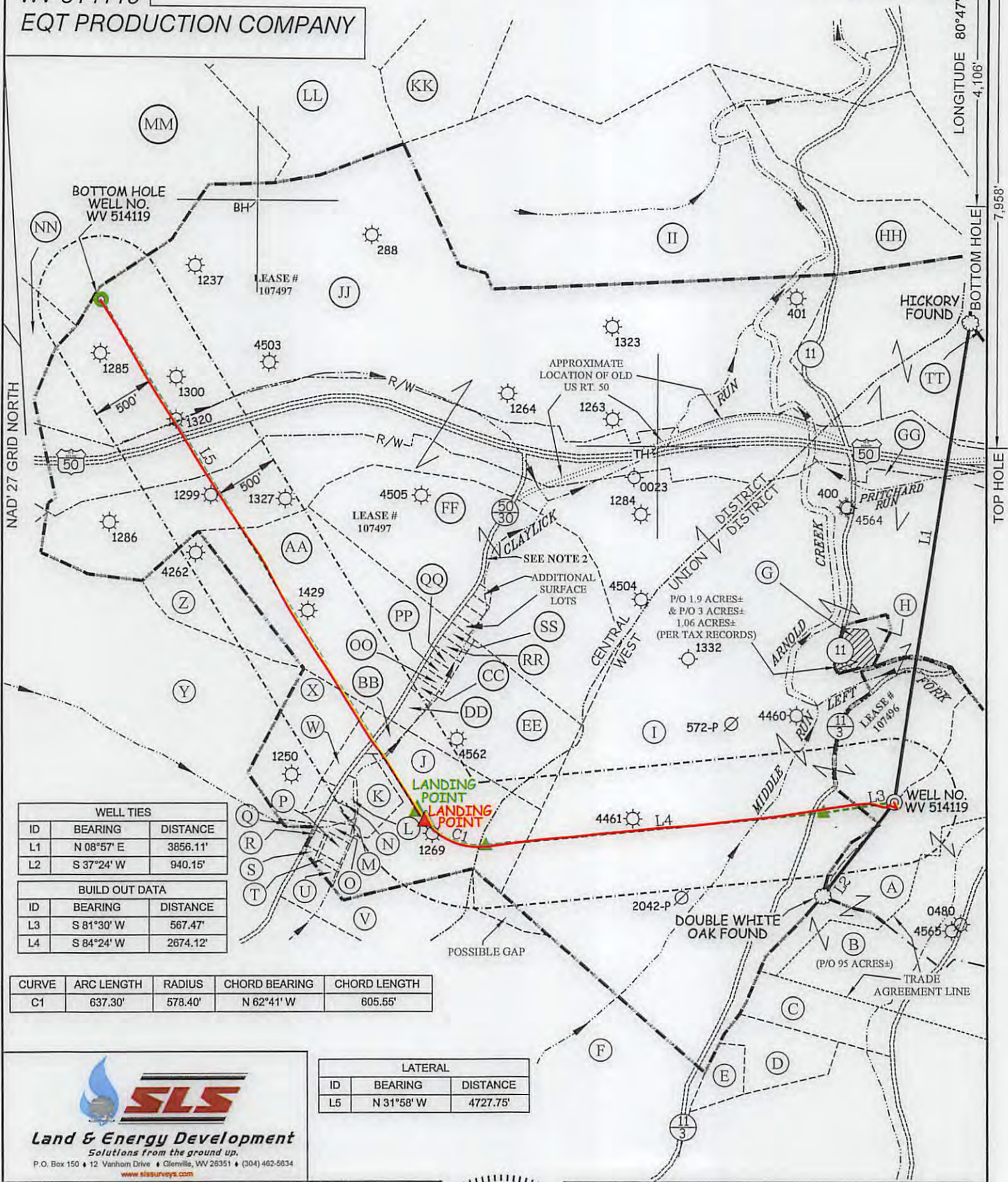
WEU8
WV 514119
EQT PRODUCTION COMPANY

BOTTOM HOLE

11,528'

LATITUDE 39°17'30"

LONGITUDE 80°47'30"



WELL TIES		
ID	BEARING	DISTANCE
L1	N 08°57' E	3856.11'
L2	S 37°24' W	940.15'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	S 81°30' W	567.47'
L4	S 84°24' W	2674.12'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	637.30'	578.40'	N 62°41' W	605.55'

LATERAL		
ID	BEARING	DISTANCE
L5	N 31°58' W	4727.75'



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NAD27 GEO. LAT-(N) 39.280380 LONG-(W) 80.832405
NAD83 UTM (M) N. 4,347,913.97 E. 514,489.71



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- LEASE LINE
- SURFACE LINE
- PROPOSED PATH
- AS DRILLED PATH
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- CENTRAL DISTRICT TAX MAP-PARCEL C-00-00
- WEST UNION DISTRICT TAX MAP-PARCEL WU-00-00

SCALE 1" = 1000' FILE NO. 7746AD514119

DATE MARCH 11, 2016

REVISED 07/14/16 & 10/12/16

OPERATORS WELL NO. WV 514119

API WELL NO. 47-017-06774H
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



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04/14/2017