

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

API 47 - 051 - 02018 County Marshall District Union  
Quad Moundsville Pad Name Casterly Rock Field/Pool Name Point Pleasant  
Farm name Leslie B. & Lori D. Schaber Well Number Casterly Rock-2UH  
Operator (as registered with the OOG) American Petroleum Partners Operating, LLC  
Address 4600 J. Barry Court Suite 310 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4424083.6473 (m) Easting 528586.6051 (m)  
Landing Point of Curve Northing 4424315.7806 (m) Easting 528567.1244 (m)  
Bottom Hole Northing 4426729.6921 (m) Easting 526885.6523 (m)

Elevation (ft) 1312.1 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)  
Air - foam & 5% KCL (Surface hole = air and clean water)  
Mud - SOB

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Date permit issued 05/30/2018 Date drilling commenced Cond: 10/7/18; Top Hole 12/1/18 Date drilling ceased 4/5/2019  
Date completion activities began 6/26/2019 Date completion activities ceased 8/29/2019  
Verbal plugging (Y/N) No Date permission granted na Granted by \_\_\_\_\_

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

Freshwater depth(s) ft 130', 825' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft Did not encounter Void(s) encountered (Y/N) depths None  
Coal depth(s) ft 750', 836' Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) Y

Reviewed by:  
JD 7/29/2021

API 47-051 - 02018

Farm name Leslie B. & Lori D. Schaber

Well number Casterly Rock-2UH

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	36"	30"	40'	New	LS 81.3#	none	Yes
Surface	24"	20"	887'	New	J-55 94#	none	Yes
Coal	17.5"	13 3/8"	2463'	New	J-55 54.5#	none	Yes
Intermediate 1	12.38"	9 5/8"	9620'	New	P-110 43.5#	none	Yes
Intermediate 2							
Intermediate 3							
Production	8.75"	5 1/2"	21,466'	New	HCP-110 23#	none	Yes
Tubing	5.14"	2 7/8"		New	J-55 6.5#		
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1					0'	
Surface	Class A	1558	15.6	1.19		0'	8 hrs
Coal	Class A	2128	15.6	1.18		0'	8 hrs
Intermediate 1	Class A	596 bbl lead 123 bbl Tail	12.0 / 15.2	1.80 / 1.26		0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	lead 862 / Tail 2943	15.8 / 15.8	1.0 / 1.01		4603'	
Tubing							

Drillers TD (ft) 21,477'

Loggers TD (ft) 21,446'

Deepest formation penetrated Point Pleasant

Plug back to (ft) 11099'

Plug back procedure Drill down to 11590 - plug back to 9845 with two 800 foot cement plugs

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Kick off depth (ft) 11099'

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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 / Freshwater String - Bowstring every 3 joints to 100' from surface

1st Intermediate - Bowstring every 3 joints to 100' from surface

2nd Intermediate - Bowstring every 3 joints to 100' from surface

Production - Rigid Bow Spring every joint from KOP to TOC

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 Fluid Tracers



API 47- 051 - 02018

Farm name Leslie B. & Lori D. Schaber

Well number Casterly Rock-2UH

PRODUCING FORMATION(S)	DEPTHS	TVD	MD
POINT PLEASANT	11,307'	11,723'	

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Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 7508 psi Bottom Hole x psi DURATION OF TEST 24 hrs

OPEN FLOW Gas Oil NGL Water GAS MEASURED BY

5535 mcfpd 0 bpd 0 bpd 522 bpd  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	0		0		

See additional sheet

Please insert additional pages as applicable.

Drilling Contractor Schlumberger

Address 4600 J. Barry Court, Suite 201 City Canonsburg State PA Zip 15317

Logging Company Computerized Mudlogging Service, LLC

Address 762 Bev Road City Youngstown State OH Zip 44512

Cementing Company Schlumberger

Address 4600 J. Barry Court, Suite 201 City Canonsburg State PA Zip 15317

Stimulating Company FTS International Services, LLC

Address 777 Main St., SE 2900 City Fort Worth State TX Zip 76102

Please insert additional pages as applicable.

Completed by Braulio Silva Telephone 1-724-338-8629

Signature \_\_\_\_\_ Title VP - Drilling Date 11/25/2019

PERFORATION RECORD						
Well #	Stage #	Date	Top TD	Bottom TD	Number of Perforations	Formation
2UH	1	6/26/2019	21265	21305	6	Utica
2UH	2	6/27/2019	21110	21244	6	Utica
2UH	3	6/29/2019	20968	21095	6	Utica
2UH	4	6/29/2019	20947	20819	6	Utica
2UH	5	6/30/2019	20670	20798	6	Utica
2UH	6	6/30/2019	20522	20649	6	Utica
2UH	7	7/1/2019	20373	20500	6	Utica
2UH	8	7/1/2019	20224	20352	6	Utica
2UH	9	7/2/2019	20075	20203	6	Utica
2UH	10	7/2/2019	19927	20054	6	Utica
2UH	11	7/3/2019	19778	19905	6	Utica
2UH	12	7/4/2019	19629	19757	6	Utica
2UH	13	7/6/2019	19480	19608	6	Utica
2UH	14	7/7/2019	19332	19459	6	Utica
2UH	15	7/8/2019	19183	19310	6	Utica
2UH	16	7/9/2019	19034	19162	6	Utica
2UH	17	7/11/2019	18885	19013	6	Utica
2UH	18	7/12/2019	18737	18864	6	Utica
2UH	19	7/13/2019	18588	18715	6	Utica
2UH	20	7/15/2019	18439	18567	6	Utica
2UH	21	7/16/2019	18290	18418	6	Utica
2UH	22	7/17/2019	18142	18269	6	Utica
2UH	23	7/18/2019	17993	18120	6	Utica
2UH	24	7/19/2019	17844	17972	6	Utica
2UH	25	7/20/2019	17695	17823	6	Utica
2UH	26	7/21/2019	17547	17674	6	Utica
2UH	27	7/21/2019	17398	17525	6	Utica
2UH	28	7/31/2019	17249	17377	6	Utica
2UH	29	8/1/2019	17100	17228	6	Utica
2UH	30	8/1/2019	16952	17079	6	Utica
2UH	31	8/1/2019	16803	16930	6	Utica
2UH	32	8/2/2019	16654	16782	6	Utica
2UH	33	8/2/2019	16505	16633	6	Utica
2UH	34	8/2/2019	16357	16484	6	Utica
2UH	35	8/2/2019	16208	16335	6	Utica
2UH	36	8/3/2019	16059	16187	6	Utica
2UH	37	8/3/2019	15910	16038	6	Utica
2UH	38	8/4/2019	15762	15889	6	Utica
2UH	39	8/4/2019	15613	15740	6	Utica
2UH	40	8/4/2019	15464	15592	6	Utica
2UH	41	8/4/2019	15315	15443	6	Utica
2UH	42	8/5/2019	15167	15294	6	Utica
2UH	43	8/5/2019	15018	15145	6	Utica
2UH	44	8/5/2019	14869	14997	6	Utica
2UH	45	8/6/2019	14720	14848	6	Utica
2UH	46	8/6/2019	14572	14699	6	Utica
2UH	47	8/6/2019	14423	14550	6	Utica
2UH	48	8/6/2019	14274	14402	6	Utica
2UH	49	8/7/2019	14125	14253	6	Utica
2UH	50	8/7/2019	13977	14104	6	Utica
2UH	51	8/7/2019	13828	13955	6	Utica
2UH	52	8/8/2019	13679	13807	6	Utica
2UH	53	8/8/2019	13530	13658	6	Utica
2UH	54	8/9/2019	13382	13509	6	Utica
2UH	55	8/9/2019	13233	13360	6	Utica
2UH	56	8/9/2019	13084	13212	6	Utica
2UH	57	8/9/2019	12935	13063	6	Utica
2UH	58	8/9/2019	12787	12914	6	Utica
2UH	59	8/10/2019	12638	12765	6	Utica
2UH	60	8/10/2019	12489	12617	6	Utica
2UH	61	8/10/2019	12340	12468	6	Utica
2UH	62	8/10/2019	12192	12319	6	Utica
2UH	63	8/10/2019	12043	12170	6	Utica
2UH	64	8/11/2019	11894	12022	6	Utica
2UH	65	8/11/2019	11745	11873	6	Utica
2UH	66	8/11/2019	11597	11724	6	Utica
2UH	67	8/12/2019	11448	11575	6	Utica

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## STIMULATION RECORD

Well #	Stage #	Date	Average Rate (bpm)	Average Pressure (psi)	Max Pressure (psi)	ISIP (psi)	Proppant Volume (100'lb)	Freshwater Volume	Nitrogen
2UH	1	6/27/2019	67.0	11,230	11,518	6916	360,000	11,491	0
2UH	2	6/28/2019	71.0	11945.0	12455.0	7,093	360,222	11,234	0
2UH	3	6/29/2019	78.0	11584.0	12443.0	7,887	360,390	11,096	0
2UH	4	6/29/2019	73.0	11669.0	12453.0	8,195	360,450	12,072	0
2UH	5	6/30/2019	77.0	11,831	12,106	7978	360,586	10,689	0
2UH	6	6/30/2019	79.6	11,859	12,176	8126	358,600	10,748	0
2UH	7	7/1/2019	76.0	11,393	12,027	8065	360,197	10,118	0
2UH	8	7/1/2019	82.2	12,024	12,288	8368	359,060	11,228	0
2UH	9	7/3/2019	64.5	10,863	12,597	8127	361,200	15,790	0
2UH	10	7/3/2019	79.7	11,984	12,482	8067	359,160	11,072	0
2UH	11	7/4/2019	79.9	11,850	12,283	7900	360,660	10,860	0
2UH	12	7/6/2019	79.6	11,697	12,197	7608	359,760	10,100	0
2UH	13	7/7/2019	76.2	10,909	11,332	7872	359,800	10,651	0
2UH	14	7/8/2019	75.0	11,327	12,015	7722	359,250	9,626	0
2UH	15	7/9/2019	73.0	11,266	11,738	7990	360,040	10,761	0
2UH	16	7/11/2019	75.2	10,781	11,586	7066	357,523	10,007	0
2UH	17	7/12/2019	74.0	10,922	11,713	7891	359,460	9,745	0
2UH	18	7/13/2019	70.0	11,189	12,545	7943	361,600	10,422	0
2UH	19	7/15/2019	78.0	10,771	12,255	7668	361,600	10,841	0
2UH	20	7/16/2019	71.0	11,247	12,104	8354	360,040	10,104	0
2UH	21	7/17/2019	77.0	11,272	11,806	8270	363,000	10,022	0
2UH	22	7/18/2019	82.0	11,626	12,198	8128	360,760	9,934	0
2UH	23	7/19/2019	73.0	10,992	12,563	7262	361,140	11,233	0
2UH	24	7/20/2019	81.8	11,464	12,360	7150	360,044	9,894	0
2UH	25	7/21/2019	73.9	10,772	12,400	7105	560,225	12,740	0
2UH	26	7/21/2019	81.0	11,711	12,153	7961	360,380	10,009	0
2UH	27	7/21/2019	76.7	11,065	12,365	7578	360,954	10,204	0
2UH	28	8/1/2019	79.8	10,995	11,484	8048	416,040	13,839	0
2UH	29	8/1/2019	80.8	11,178	12,398	8086	361,959	9,774	0
2UH	30	8/1/2019	80.6	11,271	11,919	7919	360,346	9,992	0
2UH	31	8/1/2019	80.8	11,266	12,003	8081	360,720	9,905	0
2UH	32	8/2/2019	75.9	11,100	12,156	8187	355,431	10,229	0
2UH	33	8/2/2019	73.9	11,076	12,490	7584	360,086	10,056	0
2UH	34	8/2/2019	80.1	11,311	11,929	8102	362,040	10,008	0
2UH	35	8/3/2019	80.6	11,408	11,818	7951	360,080	9,867	0
2UH	36	8/3/2019	74.4	11,354	12,419	8172	360,000	9,577	0
2UH	37	8/3/2019	81.1	11,448	12,381	8170	360,360	10,170	0
2UH	38	8/4/2019	80.2	11,807	12,230	8161	360,020	9,882	0
2UH	39	8/4/2019	77.0	11,768	12,330	7726	360,167	9,637	0
2UH	40	8/4/2019	80.3	11,591	12,270	8260	360,140	9,956	0
2UH	41	8/5/2019	80.7	11,631	12,019	8498	361,880	10,253	0
2UH	42	8/5/2019	79.5	11,462	12,096	8053	360,485	9,638	0
2UH	43	8/5/2019	77.7	11,277	11,973	8260	360,066	9,760	0
2UH	44	8/6/2019	79.0	10,889	12,184	8148	360,000	11,242	0
2UH	45	8/6/2019	81.0	11,604	12,208	8025	360,128	9,588	0
2UH	46	8/6/2019	77.0	11,644	11,989	8172	360,138	10,169	0
2UH	47	8/6/2019	80.0	11,408	12,528	8281	360,092	10,445	0
2UH	48	8/7/2019	80.5	11,527	12,197	8079	360,032	10,581	0
2UH	49	8/7/2019	80.0	11,256	11,675	7977	360,607	10,070	0
2UH	50	8/7/2019	83.0	11,894	12,282	8192	360,694	10,385	0
2UH	51	8/8/2019	81.2	11,062	12,116	8196	360,829	10,249	0
2UH	52	8/8/2019	83.0	11,533	12,425	8048	360,097	10,231	0
2UH	53	8/9/2019	83.0	11,531	12,130	8092	360,092	10,216	0
2UH	54	8/9/2019	83.0	11,637	12,307	8054	360,088	10,097	0
2UH	55	8/9/2019	83.4	11,544	12,427	7998	361,016	10,044	0
2UH	56	8/9/2019	82.0	11,638	12,064	7963	360,373	9,953	0
2UH	57	8/9/2019	82.0	11,850	12,580	7922	360,133	10,102	0
2UH	58	8/10/2019	83.0	11,704	12,304	7903	360,087	10,202	0
2UH	59	8/10/2019	82.5	11,696	12,280	7902	360,001	10,053	0
2UH	60	8/10/2019	81.9	11,665	12,305	7783	360,031	10,324	0
2UH	61	8/10/2019	82	12009	12,379	7797	360,093	10,008	0
2UH	62	8/10/2019	82.0	11,766	12,293	7569	360,777	10,046	0
2UH	63	8/11/2019	82.0	11,653	12,275	7711	360,002	10,140	0
2UH	64	8/11/2019	81.9	11,786	12,394	7782	360,200	9,856	0
2UH	65	8/11/2019	83.0	11,066	12,048	7816	360,480	11,051	0
2UH	66	8/12/2019	82.1	10,712	12,087	8130	335,306	12,487	0
2UH	67	8/12/2019	80.3	10,549	12,118	6952	370,000	11,976	0

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/27/2019
Job End Date:	8/12/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02018-00-00
Operator Name:	American Petroleum Partners Operating, LL
Well Name and Number:	Casterly Rock-2UH
Latitude:	39.96634385
Longitude:	-80.66546657
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,260
Total Base Water Volume (gal):	29,753,598
Total Base Non Water Volume:	138,003

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## 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	Supplied by Operator	Base Fluid	Water	7732-18-5	100.00000	88.67132	
Other Chemical (s)	Listed Above	See Trade Name (s) List	Water	7732-18-5	85.00000	0.29767	

				Water	7732-18-5	97.00000	0.01905	
				Water	7732-18-5	100.00000	0.01770	
40/70 White	FTSI	Proppant			Listed Below			
CS-750 SI	FTSI	Scale Inhibitor			Listed Below			
Bactron K-139	FTSI	Biocide			Listed Below			
100 Mesh Sand	FTSI	Proppant			Listed Below			
FRACWAVE HVS	FTSI	Viscosifier			Listed Below			
10.1%-15.0% HCL	FTSI	Acid			Listed Below			
CI-150	FTSI	Acid Corrosion Inhibitor			Listed Below			
Pump Kleen	FTSI	Pump and hose flush			Listed Below			

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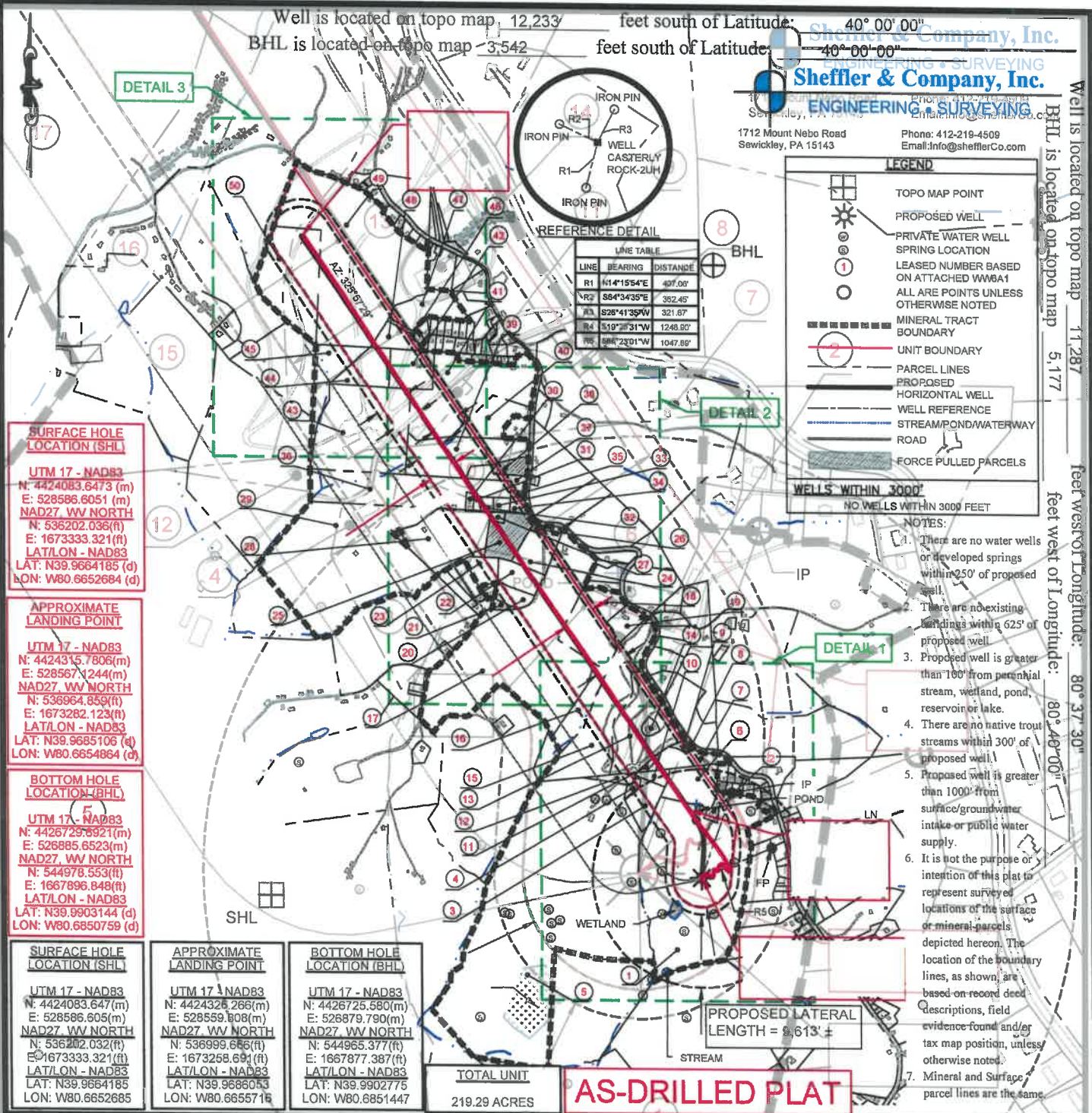
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				Listed Below			
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.							
				Silica, Quartz	14808-60-7	100.00000	8.71109
				Silica, Quartz	14808-60-7	100.00000	2.17767
				Hydrogen Chloride	7647-01-0	15.00000	0.05253
				Petroleum distillates, hydrotreated light	64742-47-8	60.00000	0.02741
				Friction Reducer	Proprietary	40.00000	0.01827
				Raffinates (petroleum), sorption process	64741-85-1	100.00000	0.00577
				White mineral oil	8042-47-5	100.00000	0.00577
				Polybutene (Isobutylene/Butene copolymer)	9003-29-6	100.00000	0.00577
				Proprietary Scale Inhibitor	Proprietary	10.00000	0.00196
				Quaternary ammonium compound	68424-85-1	10.00000	0.00177
				Glutaraldehyde	111-30-8	5.00000	0.00088
				Ethanol	64-17-5	5.00000	0.00088
				Methanol	67-56-1	90.00000	0.00084
				Fatty Acids, Tall Oil	61790-12-3	10.00000	0.00009
				Alcohol Ethoxylate Surfactants	Proprietary	10.00000	0.00009
				Thiourea-formaldehyde Copolymer	68527-49-1	10.00000	0.00009
				Propargyl Alcohol	107-19-7	5.00000	0.00005
				N-olefins	Proprietary	3.00000	0.00003
				Proprietary	Proprietary		

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\* 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)



**SURFACE HOLE LOCATION (SHL)**

UTM 17 - NAD83  
N: 4424083.6473 (m)  
E: 528586.6051 (m)  
NAD27\_VV NORTH  
N: 536202.036 (ft)  
E: 1673333.321 (ft)  
LAT/LON - NAD83  
LAT: N39.9664185 (d)  
LON: W80.6652684 (d)

**APPROXIMATE LANDING POINT**

UTM 17 - NAD83  
N: 4424315.7806 (m)  
E: 528567.1244 (m)  
NAD27\_VV NORTH  
N: 536964.859 (ft)  
E: 1673282.123 (ft)  
LAT/LON - NAD83  
LAT: N39.9685106 (d)  
LON: W80.6654864 (d)

**BOTTOM HOLE LOCATION (BHL)**

UTM 17 - NAD83  
N: 4426729.5921 (m)  
E: 526885.6523 (m)  
NAD27\_VV NORTH  
N: 544978.553 (ft)  
E: 1667896.848 (ft)  
LAT/LON - NAD83  
LAT: N39.9903144 (d)  
LON: W80.6850759 (d)

**SURFACE HOLE LOCATION (SHL)**

UTM 17 - NAD83  
N: 4424083.647 (m)  
E: 528586.605 (m)  
NAD27\_VV NORTH  
N: 536202.032 (ft)  
E: 1673333.321 (ft)  
LAT/LON - NAD83  
LAT: N39.9664185  
LON: W80.6652685

**APPROXIMATE LANDING POINT**

UTM 17 - NAD83  
N: 4424325.266 (m)  
E: 528559.808 (m)  
NAD27\_VV NORTH  
N: 536999.656 (ft)  
E: 1673258.691 (ft)  
LAT/LON - NAD83  
LAT: N39.9686053  
LON: W80.6655716

**BOTTOM HOLE LOCATION (BHL)**

UTM 17 - NAD83  
N: 4426725.580 (m)  
E: 526879.790 (m)  
NAD27\_VV NORTH  
N: 544965.377 (ft)  
E: 1667877.387 (ft)  
LAT/LON - NAD83  
LAT: N39.9902775  
LON: W80.6851447

**LEGEND**

- TOPO MAP POINT
- PROPOSED WELL
- PRIVATE WATER WELL SPRING LOCATION
- LEASED NUMBER BASED ON ATTACHED WMB#1
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- UNIT BOUNDARY
- PARCEL LINES
- PROPOSED HORIZONTAL WELL
- WELL REFERENCE
- STREAM/POND/WATERWAY
- ROAD
- FORCE PULLED PARCELS

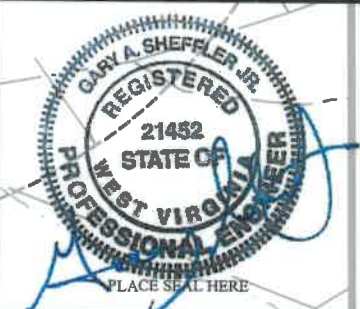
**WELLS WITHIN 3000'**  
NO WELLS WITHIN 3000 FEET

- NOTES:**
- There are no water wells or developed springs within 250' of proposed well.
  - There are no existing buildings within 625' of proposed well.
  - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
  - There are no native trout streams within 300' of proposed well.
  - Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
  - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
  - Mineral and Surface parcel lines are the same.

FILE #. CASTERLY ROCK-2UH  
DRAWING #. CRN-2UH AS DRILL R1.DWG  
SCALE: 2 1/2"=2000'  
MINIMUM DEGREE OF ACCURACY: 1/2500'  
PROVEN SOURCE OF ELEVATION: USGS MONUMENT JX0787: 1319.9'

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.

SIGNED: *[Signature]*  
R.P.E.: 21452 L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDOP OFFICE OF OIL & GAS 660 157TH STREET CHARLESTON, WV 25304

WELL TYPE:  Oil  Waste Disposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow

WATERSHED: SHORT CREEK OHIO RIVER ELEVATION: 1,337.89' AS-DRILLED ELEVATION: 1,312.1'

COUNTY/DISTRICT: MARSHALL UNION QUADRANGLE: MOUNDSVILLE WV

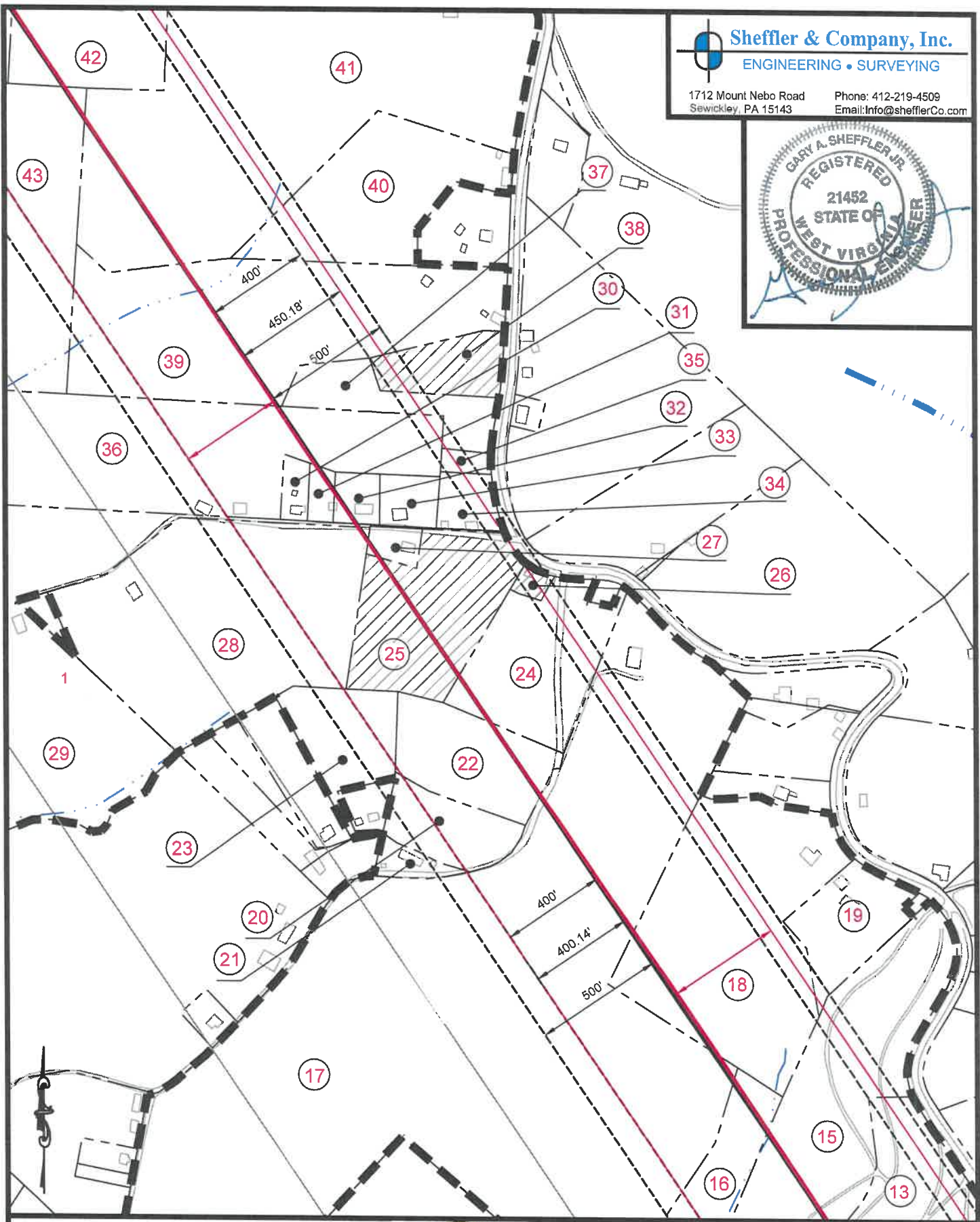
SURFACE OWNER: LESLIE B. & BRENDA SCHABER ACREAGE: 7.7175

OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010 AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST DATED OCTOBER 28, 2010 TRUST ACREAGE: 73.74

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)  AS-DRILLED

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN  
 Address: 44600 BARRY COURT, SUITE 310 Address: 300 SUMMERS ST., SUITE 1000  
 City: CANONSBURG State: PA Zip Code: 15317 City: CHARLESTON State: WV Zip Code: 25301



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

OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25304

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow



DATE: May 22, 2018 - AS-DRILLED - June 28, 2019

OPERATOR'S WELL #: CASTERLY ROCK-2UH

API WELL # 47 051 02018  
STATE COUNTY PERMIT

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89' AS-DRILLED ELEVATION: 1,312.1'

COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDVILLE, WV

SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75

OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010

AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. TRUST ACREAGE: 73.74

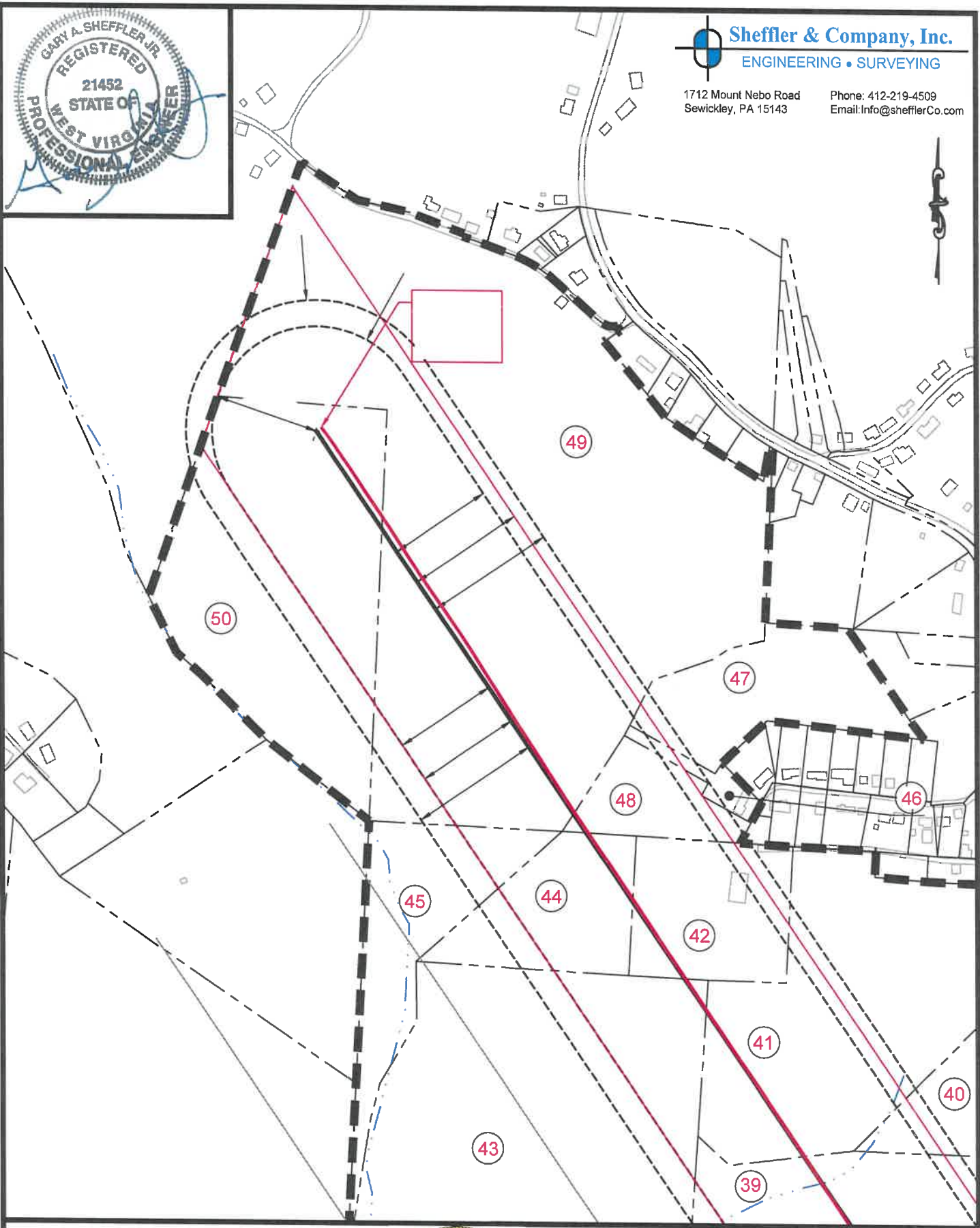
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TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN

Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301



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