

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

API 47 - 051 - 02046 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-3UH
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 4424075.965 (m) Easting 528578.752 (m)
Landing Point of Curve Northing 4424015.695 (m) Easting 528170.443 (m)
Bottom Hole Northing 4426133.432 (m) Easting 526704.719 (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 - SOBM

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Date permit issued 09/18/2018 Date drilling commenced 05/29/2019 Cond: 10/7/18; Top Hole 12/18/18 Date drilling ceased 05/29/2019
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:
JJ 7/29/2021

API 47-051 - 02046 Farm name Leslie B. & Lori D. Schaber Well number Casterly Rock-3UH

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"	1259'	New	J-55 94#	none	Yes
Coal	17.5"	13 3/8"	2469'	New	55 54.5#	none	Yes
Intermediate 1	12.38"	9 5/8"	9854'	New	P-110 43.5#	none	Yes
Intermediate 2							
Intermediate 3							
Production	8.75"	5 1/2"	20307'	New	P110ICY 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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Type 1						
Surface	Class A	Lead 1323/Tail 826	15.6	1.18	453	0'	8 hrs
Coal	Class A	2563	15.6	1.18	539	0'	8 hrs
Intermediate 1	Class A	Lead 1871/Tail 1919	12/15.2	1.8/1.26	600/431	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	3964	16.4	1.07	756		
Tubing							

Drillers TD (ft) 20,324' Loggers TD (ft) 20,311'
 Deepest formation penetrated Point Pleasant Plug back to (ft) _____
 Plug back procedure _____

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Kick off depth (ft) 9,920'

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

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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 - 02046 Farm name Leslie B. & Lori D. Schaber Well number Casterly Rock-3UH

PRODUCING FORMATION(S) DEPTHS
POINT PLEASANT 11,292' TVD 11,961' MD

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Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

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SHUT-IN PRESSURE Surface 7506 psi Bottom Hole ^x _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 5477 mcfpd Oil 0 bpd NGL 0 bpd Water 270 bpd GAS MEASURED BY 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 ₂ S, ETC)
	0		0		
					See additional sheet

Please insert additional pages as applicable.

Drilling Contractor Baker Hughes
Address 370 Westec Dr City Mount Pleasant State PA Zip 15666

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
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
3UH	1	6/30/2019	20101	20213	6	Utica
3UH	2	7/4/2019	19952	20080	6	Utica
3UH	3	7/5/2019	19804	19931	6	Utica
3UH	4	7/7/2019	19656	19783	6	Utica
3UH	5	7/7/2019	19507	19634	6	Utica
3UH	6	7/9/2019	19359	19486	6	Utica
3UH	7	7/10/2019	19210	19337	6	Utica
3UH	8	7/11/2019	19062	19189	6	Utica
3UH	9	7/13/2019	19041	18913	6	Utica
3UH	10	7/14/2019	18892	18765	6	Utica
3UH	11	7/15/2019	18616	18744	6	Utica
3UH	12	7/17/2019	18468	18595	6	Utica
3UH	13	7/17/2019	18320	18447	6	Utica
3UH	14	7/18/2019	18171	18298	6	Utica
3UH	15	7/19/2019	18023	18150	6	Utica
3UH	16	7/20/2019	17874	18002	6	Utica
3UH	17	7/21/2019	17726	17853	6	Utica
3UH	18	7/21/2019	17577	17705	6	Utica
3UH	19	7/22/2019	17429	17556	6	Utica
3UH	20	7/23/2019	17281	17408	6	Utica
3UH	21	7/23/2019	17132	17259	6	Utica
3UH	22	7/23/2019	16984	17111	6	Utica
3UH	23	7/23/2019	16835	16963	6	Utica
3UH	24	7/24/2019	16687	16814	6	Utica
3UH	25	7/24/2019	16538	16666	6	Utica
3UH	26	7/24/2019	16390	16517	6	Utica
3UH	27	7/25/2019	16242	16369	6	Utica
3UH	28	7/25/2019	16093	16220	6	Utica
3UH	29	7/25/2019	15945	16072	6	Utica
3UH	30	7/26/2019	15796	15923	6	Utica
3UH	31	7/26/2019	15648	15775	6	Utica
3UH	32	7/26/2019	15499	15627	6	Utica
3UH	33	7/27/2019	15351	15478	6	Utica
3UH	34	7/27/2019	15202	15330	6	Utica
3UH	35	7/27/2019	15054	15181	6	Utica
3UH	36	7/28/2019	14906	15033	6	Utica
3UH	37	7/28/2019	14757	14884	6	Utica
3UH	38	7/28/2019	14609	14736	6	Utica
3UH	39	7/28/2019	14460	14588	6	Utica
3UH	40	7/29/2019	14312	14439	6	Utica
3UH	41	7/29/2019	14163	14291	6	Utica
3UH	42	7/29/2019	14015	14142	6	Utica
3UH	43	7/30/2019	13867	13994	6	Utica
3UH	44	7/30/2019	13718	13845	6	Utica
3UH	45	7/30/2019	13570	13697	6	Utica
3UH	46	8/1/2019	13421	13549	6	Utica
3UH	47	8/1/2019	13272	13400	6	Utica
3UH	48	8/2/2019	13124	13252	6	Utica
3UH	49	8/2/2019	12976	13103	6	Utica
3UH	50	8/3/2019	12828	12955	6	Utica
3UH	51	8/3/2019	12679	12806	6	Utica
3UH	52	8/4/2019	12531	12658	6	Utica
3UH	53	8/4/2019	12382	12509	6	Utica
3UH	54	8/5/2019	12234	12361	6	Utica
3UH	55	8/6/2019	12085	12213	6	Utica
3UH	56	8/6/2019	11937	12064	6	Utica
3UH	57	8/7/2019	11788	11916	6	Utica
3UH	58	8/8/2019	11640	11767	6	Utica

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STIUMULATION RECORD

Well #	Stage #	Date	Average Rate (bpm)	Average Pressure (psi)	Max Pressure (psi)	ISIP (psi)	Proppant Volume (100*lb)	Freshwater Volume	Nitrogen
3UH	1	7/4/2019	81.2	11,316	11,933	6780	362,100	11,111	0
3UH	2	7/5/2019	78.0	11,696	12,280	6983	357,410	9,563	0
3UH	3	7/6/2019	74.9	10,990	11,797	7098	358,900	9,795	0
3UH	4	7/7/2019	75.7	10,947	11,405	7580	362,410	9,863	0
3UH	5	7/8/2019	78.0	11,174	12,286	7560	360,221	10,363	0
3UH	6	7/10/2019	78.0	10,798	12,246	7217	359,549	9,849	0
3UH	7	7/11/2019	83.0	11,196	11,819	7091	360,916	10,316	0
3UH	8	7/12/2019	77.0	10,991	12,544	7329	360,720	10,081	0
3UH	9	7/14/2019	72.0	10,566	12,144	7560	360,840	10,155	0
3UH	10	7/15/2019	63.0	11,058	12,635	7901	360,800	10,381	0
3UH	11	7/16/2019	72.0	10,767	12,784	7679	360,337	10,148	0
3UH	12	7/17/2019	73.0	11,399	12,142	7752	358,990	10,130	0
3UH	13	7/18/2019	79.0	11,476	11,980	8107	359,280	10,094	0
3UH	14	7/19/2019	80.0	11,754	12,163	8399	360,120	11,471	0
3UH	15	7/20/2019	74.0	11,263	11,981	8392	359,740	10,071	0
3UH	16	7/21/2019	82.0	11,706	12,252	8381	360,069	10,219	0
3UH	17	7/21/2019	74.0	11,513	12,524	8224	361,220	11,974	0
3UH	18	7/22/2019	82.4	11,340	12,405	7858	360,931	10,124	0
3UH	19	7/23/2019	81.2	11,412	12,170	7784	360,051	10,598	0
3UH	20	7/23/2019	83.0	11,274	12,122	7671	360,159	10,299	0
3UH	21	7/23/2019	81.0	11,146	12,197	7868	360,772	10,184	0
3UH	22	7/23/2019	82.2	10,931	12,009	7798	363,006	10,254	0
3UH	23	7/24/2019	79.5	10,872	12,689	7598	360,163	10,123	0
3UH	24	7/24/2019	83.0	11,134	12,299	7830	360,324	10,143	0
3UH	25	7/24/2019	82.5	11,210	12,471	7579	360,046	10,288	0
3UH	26	7/25/2019	81.7	10,984	11,879	7649	360,058	10,314	0
3UH	27	7/25/2019	81.0	10,977	12,335	8165	360,321	11,315	0
3UH	28	7/25/2019	82.3	10,867	12,142	8284	360,009	10,496	0
3UH	29	7/26/2019	83.5	10,990	11,590	8164	360,054	10,304	0
3UH	30	7/26/2019	83.0	10,313	12,393	8200	360,331	9,732	0
3UH	31	7/26/2019	83.5	11,054	12,167	8129	360,033	10,196	0
3UH	32	7/27/2019	82.7	11,045	12,151	8299	360,316	10,335	0
3UH	33	7/27/2019	84.0	11,028	12,402	7979	360,467	9,523	0
3UH	34	7/27/2019	72.0	10,273	12,485	7506	360,640	9,590	0
3UH	35	7/27/2019	80.7	10,768	11,596	8119	361,140	9,848	0
3UH	36	7/28/2019	76.0	10,526	11,471	7854	360,553	9,588	0
3UH	37	7/28/2019	82.5	10,924	12,171	7945	362,220	9,619	0
3UH	38	7/28/2019	82.6	10,714	11,446	8171	360,100	9,819	0
3UH	39	7/29/2019	83.3	11,086	11,943	8335	361,840	9,940	0
3UH	40	7/29/2019	79.9	10,868	12,228	8040	359,742	9,782	0
3UH	41	7/29/2019	79.3	10,864	12,115	8294	358,080	8,937	0
3UH	42	7/29/2019	81.7	10,870	11,572	8309	360,100	9,799	0
3UH	43	7/30/2019	83.2	10,924	11,777	8276	358,200	9,728	0
3UH	44	7/30/2019	80.0	10,818	12,131	8014	358,763	9,391	0
3UH	45	7/30/2019	83.3	10,578	11,327	7845	360,080	9,866	0
3UH	46	8/1/2019	79.0	10,562	11,464	8037	360,200	9,767	0
3UH	47	8/1/2019	82.5	11,278	11,923	8060	360,300	9,830	0
3UH	48	8/2/2019	79.7	10,904	11,852	7525	360,136	9,955	0
3UH	49	8/3/2019	82.7	11,147	11,749	7760	360,380	9,868	0
3UH	50	8/3/2019	81.1	11,175	11,842	8136	360,060	9,905	0
3UH	51	8/4/2019	83.2	11,157	12,046	8138	360,186	9,705	0
3UH	52	8/4/2019	82.6	10,748	11,446	8234	360,080	9,809	0
3UH	53	8/5/2019	77.2	10,794	12,630	7849	360,398	9,762	0
3UH	54	8/6/2019	81.0	11,307	12,246	8204	360,143	9,945	0
3UH	55	8/6/2019	80.0	11,202	12,347	8177	360,085	10,392	0
3UH	56	8/7/2019	83.8	11,354	11,826	8242	360,040	9,992	0
3UH	57	8/7/2019	83.0	11,259	12,445	8198	360,497	10,102	0
3UH	58	8/8/2019	84.0	10,913	12,294	6484	360,312	10,215	0

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/4/2019
Job End Date:	8/8/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02046-00-00
Operator Name:	American Petroleum Partners Operating, LL
Well Name and Number:	Casterly Rock-3UH
Latitude:	39.96627490
Longitude:	-80.66555885
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,116
Total Base Water Volume (gal):	24,637,158
Total Base Non Water Volume:	113,961

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	88.31740	
Other Chemical (s)	Listed Above	See Trade Name (s) List	Water	7732-18-5	97.00000	0.01877	



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			Water	7732-18-5	85.00000	0.29756	
			Water	7732-18-5	100.00000	0.01763	
CI-150	FTSI	Acid Corrosion Inhibitor		Listed Below			
Bactron K-139	FTSI	Biocide		Listed Below			
FRACWAVE HVS	FTSI	Viscosifier		Listed Below			
CS-750 SI	FTSI	Scale Inhibitor		Listed Below			
40/70 White	FTSI	Proppant		Listed Below			
10.1%-15.0% HCL	FTSI	Acid		Listed Below			
100 Mesh Sand	FTSI	Proppant		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	8.98112	
			Silica, Quartz	14808-60-7	100.00000	2.26249	

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	Hydrogen Chloride	7647-01-0	15.00000	0.05251
	Petroleum distillates, hydrotreated light	64742-47-8	60.00000	0.03058
	Friction Reducer	Proprietary	40.00000	0.02039
	Proprietary Scale Inhibitor	Proprietary	10.00000	0.00194
	Quaternary ammonium compound	68424-85-1	10.00000	0.00176
	Glutaraldehyde	111-30-8	5.00000	0.00088
	Ethanol	64-17-5	5.00000	0.00088
	Methanol	67-56-1	90.00000	0.00086
	Fatty Acids, Tall Oil	61790-12-3	10.00000	0.00010
	Thiourea-formaldehyde Copolymer	68527-49-1	10.00000	0.00010
	Alcohol Ethoxylate Surfactants	Proprietary	10.00000	0.00010
	Propargyl Alcohol	107-19-7	5.00000	0.00005
	N-olefins	Proprietary	3.00000	0.00003

* 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)

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Surface Hole Well is located on topo map 12,258 feet south of Latitude: 40° 00' 00"
 Bottom Hole Well is located on topo map 5,492 feet south of Latitude: 40° 00' 00"

Sheffler & Company, Inc.

PROPOSED LATERAL LENGTH = 8,176' ±

SURFACE HOLE LOCATION (SHL)
 UTM 17 - NAD83
 N: 4424075.965(m)
 E: 528578.752(m)
 NAD27 WV NORTH
 N: 536177.254(ft)
 E: 1673307.130(ft)
 LAT/LON - NAD83
 LAT: N39.9663495(d)
 LON: W80.6653607(d)

APPROXIMATE LANDING POINT
 UTM 17 - NAD83
 N: 4424015.695(m)
 E: 528170.443(m)
 NAD27 WV NORTH
 N: 536001.905(ft)
 E: 1671963.992(ft)
 LAT/LON - NAD83
 LAT: N39.9558202(d)
 LON: W80.6701443(d)

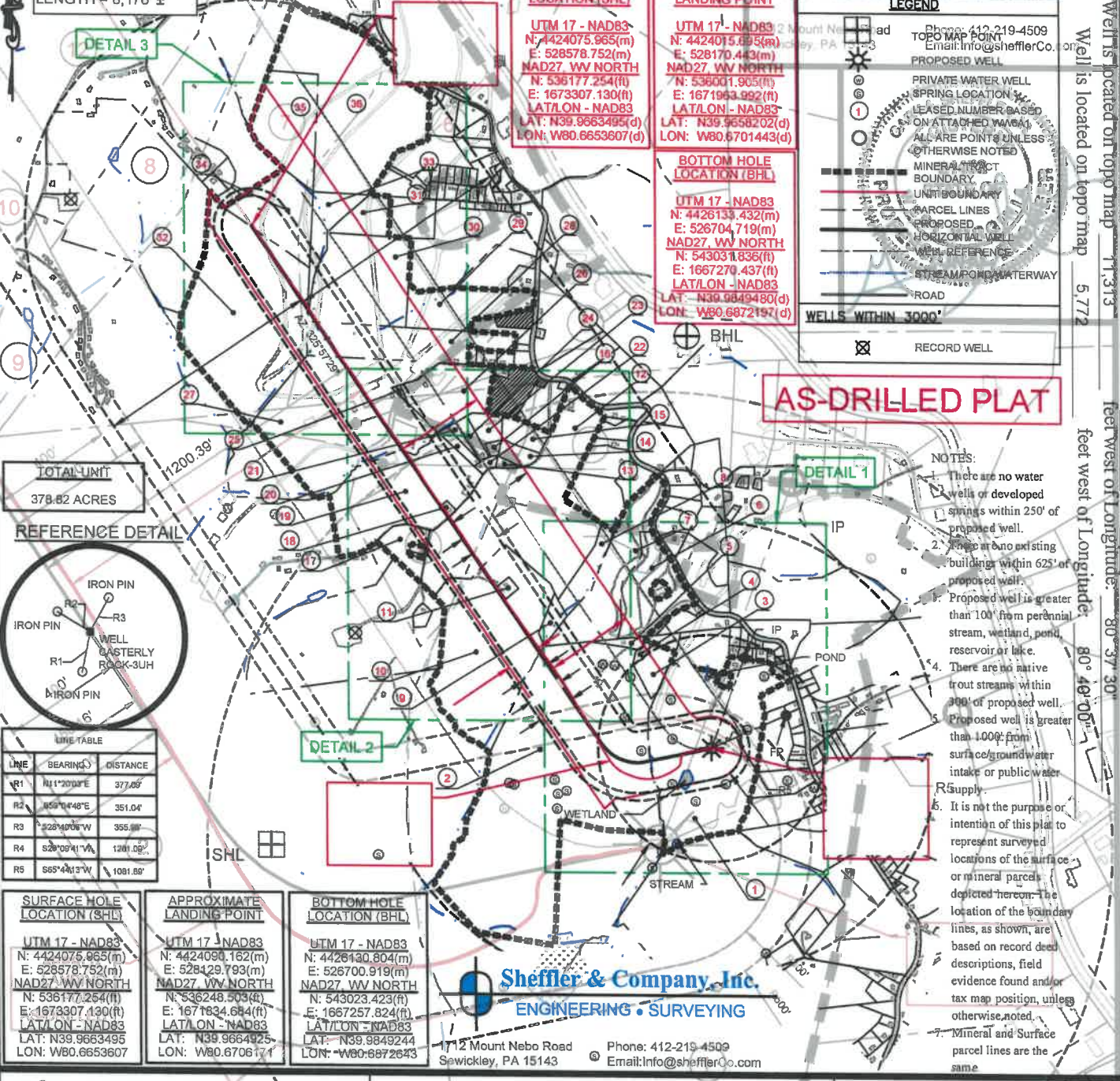
BOTTOM HOLE LOCATION (BHL)
 UTM 17 - NAD83
 N: 4426133.432(m)
 E: 526704.719(m)
 NAD27 WV NORTH
 N: 543031836(ft)
 E: 1667270.437(ft)
 LAT/LON - NAD83
 LAT: N39.9849480(d)
 LON: W80.6872197(d)

LEGEND

- TOP MAP POINT
- PROPOSED WELL
- PRIVATE WATER WELL
- SPRING LOCATION
- LEASE NUMBER BASED ON ATTACHED WABA
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- UNIT BOUNDARY
- PARCEL LINES
- PROPOSED
- HORIZONTAL WELL
- WELL REFERENCE
- STREAM/POND/WATERWAY
- ROAD
- WELLS WITHIN 3000'
- RECORD WELL

AS-DRILLED PLAT

- 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.



SURFACE HOLE LOCATION (SHL)	APPROXIMATE LANDING POINT	BOTTOM HOLE LOCATION (BHL)
UTM 17 - NAD83 N: 4424075.965(m) E: 528578.752(m) NAD27 WV NORTH N: 536177.254(ft) E: 1673307.130(ft) LAT/LON - NAD83 LAT: N39.9663495 LON: W80.6653607	UTM 17 - NAD83 N: 4424090.162(m) E: 528429.793(m) NAD27 WV NORTH N: 536248.503(ft) E: 1671834.684(ft) LAT/LON - NAD83 LAT: N39.9664925 LON: W80.6706171	UTM 17 - NAD83 N: 4426130.804(m) E: 526700.919(m) NAD27 WV NORTH N: 543023.423(ft) E: 1667257.824(ft) LAT/LON - NAD83 LAT: N39.9849244 LON: W80.6872643

Sheffler & Company, Inc.
 ENGINEERING • SURVEYING
 1712 Mount Nebo Road
 Sewickley, PA 15143
 Phone: 412-219-4509
 Email: Info@shefflerco.com

FILE #: CASTERLY ROCK-3UH
 DRAWING #: CRN-3UH_AS-DRILLED.DWG
 SCALE: 1"=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.

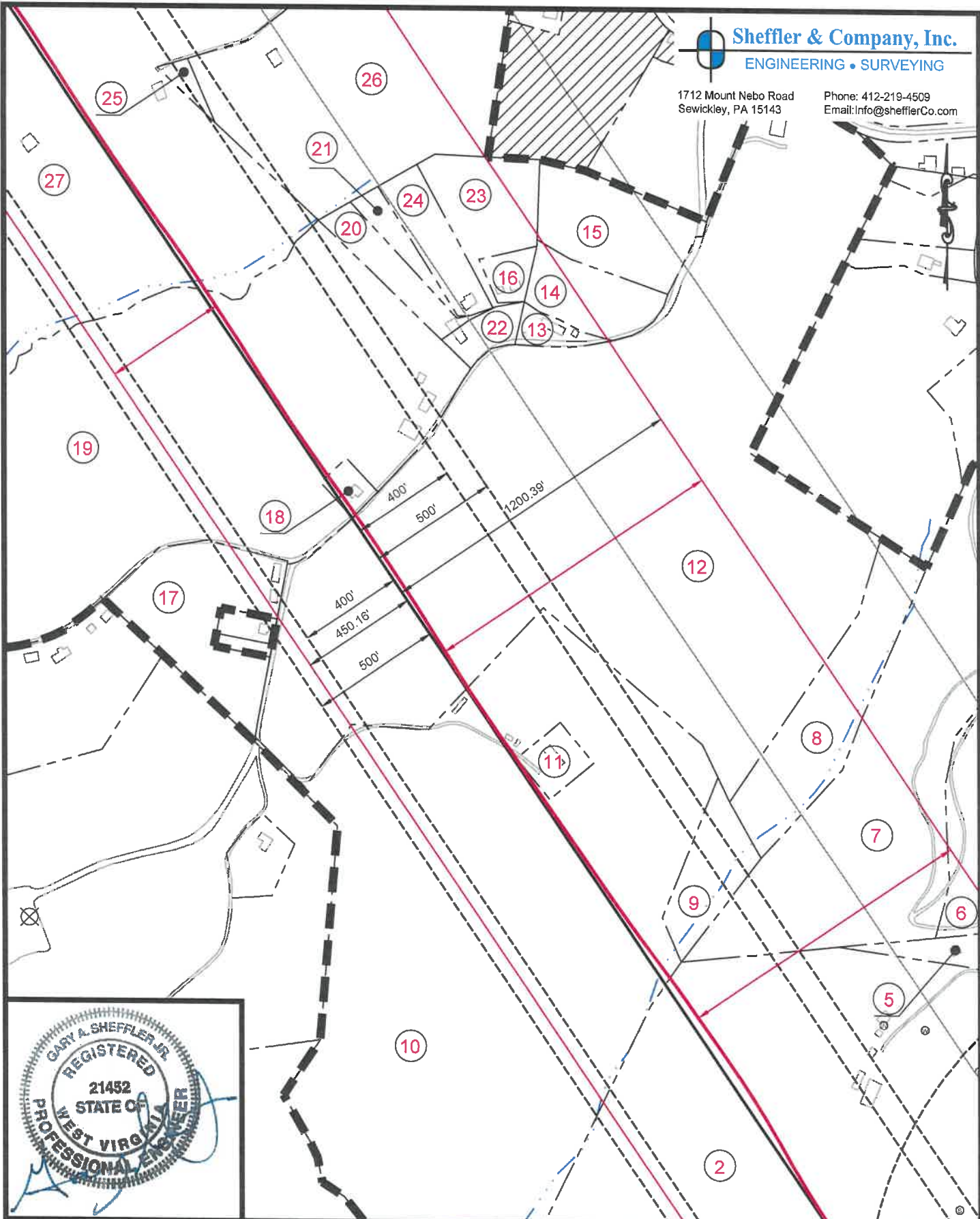
SIGNED: *Gayle*
 R.P.E.: 21452 L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WV DEP OFFICE OF OIL & GAS
 601-57TH STREET
 CHARLESTON, WV 25304
 Well Type: Oil Gas Waste Disposal Liquid Injection Production Storage Deep Shallow
 WATERSHED: SHORT CREEK OHIO RIVER
 COUNTY DISTRICT: MARSHALL / UNION
 SURFACE OWNER: LESLIE B. & LORI D. SCHABER
 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

DATE: May 22, 2018 AS-DRILLED July 16, 2019
 OPERATOR'S WELL #: CASTERLY ROCK-3UH
 API WELL # 47 051 02046
 STATE COUNTY PERMIT
 ORIGINAL ELEVATION: 1,335.74' AS-DRILLED ELEVATION: 1,312.1'
 QUADRANGLE: MOUNDSVILLE, WV
 ACREAGE: 71.75

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: TMD: 11,395' ± TMD: 20,602.68' ±
 WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, L.L.C.
 DESIGNATED AGENT: STEVEN GREEN
 Address: 4490 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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: May 22, 2018 --- AS-DRILLED --- July 16, 2019

OPERATOR'S WELL #: CASTERLY ROCK-3UH

API WELL # 47 051 02046
 STATE COUNTY PERMIT

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

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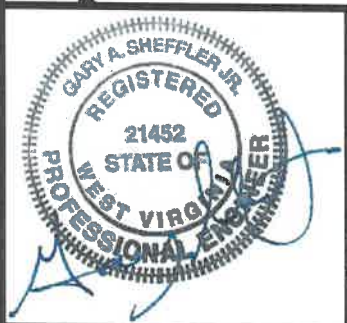
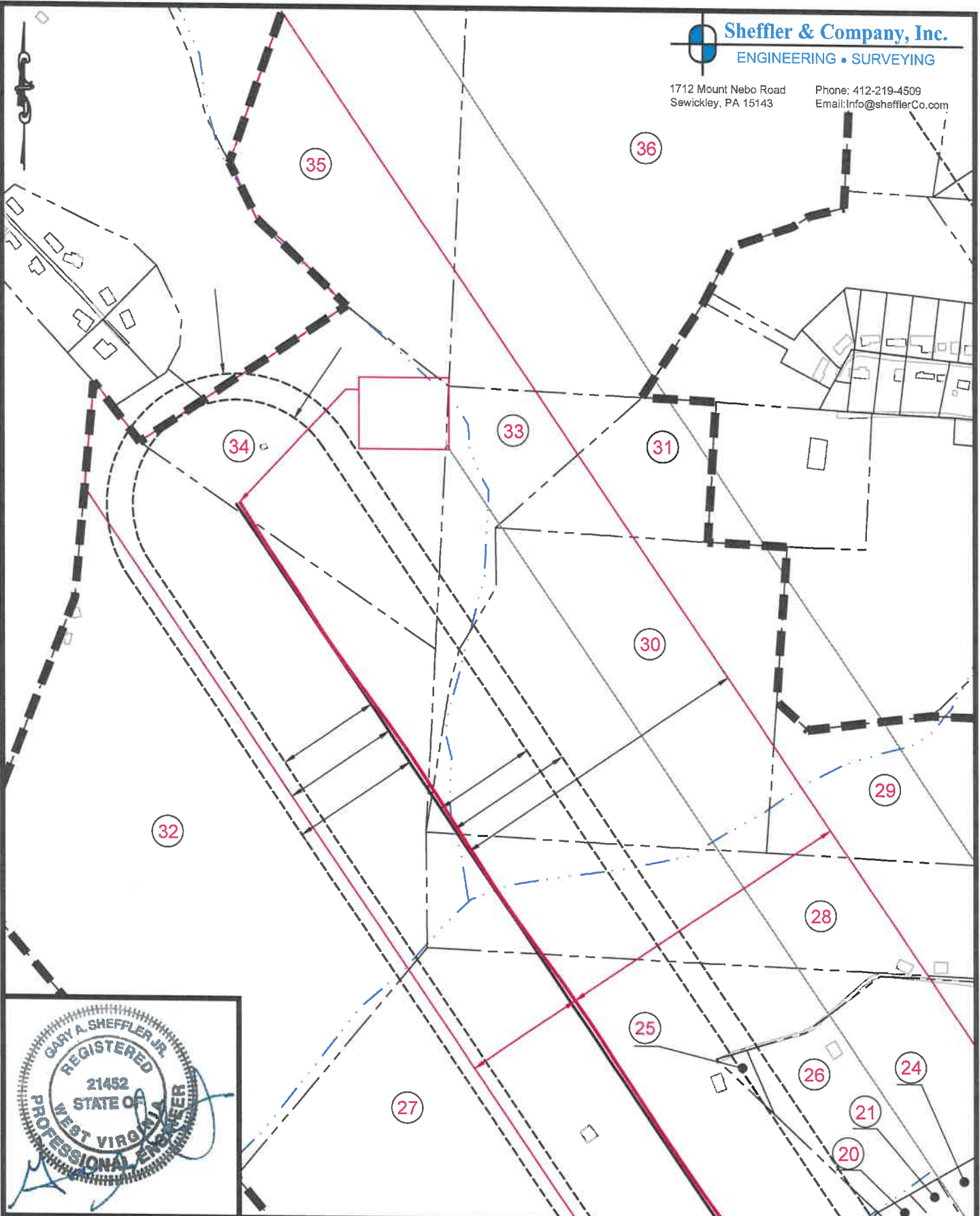
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WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN

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