

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

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Office of Oil and Gas  
JUL 29 2021  
WV Department of  
Environmental Protection

API 47 - 051 - 02071 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-5UH  
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 4424069.977 (m) Easting 528579.881 (m)  
Landing Point of Curve Northing 4423403.504 (m) Easting 528203.684 (m)  
Bottom Hole Northing 4421534.911 (m) Easting 529511.765 (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

Date permit issued 09/18/2018 Date drilling commenced Cond: 10/10/18; Top Hole: 12/25/18 Date drilling ceased 06/19/2019  
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:  
gjs 7/29/2021

API 47-051 - 02071 Farm name Leslie B. & Lori D. Schaber Well number Casterly Rock-5UH

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"	1255'	New	J-55 94#	none	Yes
Coal	17.5"	13 3/8"	2497'	New	J-55 54.5#	none	Yes
Intermediate 1	12.38"	13 39 5/8"	9951'	New	P-110 43.5#	none	Yes
Intermediate 2							
Intermediate 3							
Production	8.75"	5 1/2"	19,521'	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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1					0'	
Surface	Class A	2176	15.6	1.18	457	0'	8 hrs
Coal	Class A	2249sx	15.6	1.18	473	0'	8 hrs
Intermediate 1	Class A	1800sx/1912sx	12/15.2	1.8/1.26	577/429	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	1672sx/2084sx	16.4/16.4	1.07/1.08	320/401	3088'	
Tubing							

Drillers TD (ft) 19,545' Loggers TD (ft) 19,532'  
 Deepest formation penetrated Point Pleasant Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

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Kick off depth (ft) 9,970'

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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





**PERFORATION RECORD**

Well #	Stage #	Date	Top TD	Bottom TD	Number of Perforations	Formation
5UH	1	6/27/2019	19312	19352	6	Utica
5UH	2	6/28/2019	19163	19290	6	Utica
5UH	3	6/29/2019	19013	19141	6	Utica
5UH	4	6/29/2019	18864	18992	6	Utica
5UH	5	6/29/2019	18715	18843	6	Utica
5UH	6	6/30/2019	18566	18693	6	Utica
5UH	7	6/30/2019	18416	18544	6	Utica
5UH	8	6/30/2019	18267	18395	6	Utica
5UH	9	7/1/2019	18118	18246	6	Utica
5UH	10	7/2/2019	17969	18097	6	Utica
5UH	11	7/2/2019	17819	17947	6	Utica
5UH	12	7/3/2019	17670	17798	6	Utica
5UH	13	7/4/2019	17521	17649	6	Utica
5UH	14	7/4/2019	17372	17500	6	Utica
5UH	15	7/5/2019	17222	17350	6	Utica
5UH	16	7/5/2019	17073	17201	6	Utica
5UH	17	7/5/2019	16924	17052	6	Utica
5UH	18	7/6/2019	16775	16903	6	Utica
5UH	19	7/6/2019	16625	16753	6	Utica
5UH	20	7/6/2019	16476	16604	6	Utica
5UH	21	7/7/2019	16327	16455	6	Utica
5UH	22	7/7/2019	16178	16306	6	Utica
5UH	23	7/7/2019	16028	16156	6	Utica
5UH	24	7/8/2019	15879	16007	6	Utica
5UH	25	7/8/2019	15730	15858	6	Utica
5UH	26	7/9/2019	15581	15709	6	Utica
5UH	27	7/9/2019	15432	15559	6	Utica
5UH	28	7/8/2019	15282	15410	6	Utica
5UH	29	7/10/2019	15133	15261	6	Utica
5UH	30	7/11/2019	14984	15112	6	Utica
5UH	31	7/11/2019	14835	14962	6	Utica
5UH	32	7/12/2019	14685	14813	6	Utica
5UH	33	7/12/2019	14536	14664	6	Utica
5UH	34	7/12/2019	14387	14515	6	Utica
5UH	35	7/13/2019	14366	14238	6	Utica
5UH	36	7/13/2019	14216	14088	6	Utica
5UH	37	7/13/2019	13939	14067	6	Utica
5UH	38	7/14/2019	13896	13918	6	Utica
5UH	39	7/15/2019	13641	13769	6	Utica
5UH	40	7/15/2019	13491	13619	6	Utica
5UH	41	7/15/2019	13342	13470	6	Utica
5UH	42	7/16/2019	13193	13321	6	Utica
5UH	43	7/16/2019	13044	13172	6	Utica
5UH	44	7/17/2019	12894	13022	6	Utica
5UH	45	7/18/2019	12745	12873	6	Utica
5UH	46	7/18/2019	12596	12724	6	Utica
5UH	47	7/18/2019	12447	12575	6	Utica
5UH	48	7/19/2019	12297	12425	6	Utica
5UH	49	7/19/2019	12148	12276	6	Utica
5UH	50	7/19/2019	11999	12127	6	Utica
5UH	51	7/20/2019	11850	11978	6	Utica
5UH	52	7/20/2019	11701	11828	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
5UH	1	6/27/2019	72.0	11294.0	12251.0	7,519	357,500	11,191	0
5UH	2	6/28/2019	74.0	11890.0	12454.0	7,693	360,700	11,842	0
5UH	3	6/29/2019	74.0	11277.0	11972.0	7,691	360,200	10,476	0
5UH	4	6/30/2019	77.0	11,473	12,132	7737	360,160	11,047	0
5UH	5	6/30/2019	75.0	11,444	12,224	7520	360,220	10,429	0
5UH	6	7/1/2019	75.7	12,073	12,553	7766	360,760	10,989	0
5UH	7	7/1/2019	75.0	11,180	12,042	7263	359,355	10,081	0
5UH	8	7/2/2019	81.0	11,818	12,385	8333	361,000	11,131	0
5UH	9	7/2/2019	76.4	11,413	12,138	8162	360,020	10,816	0
5UH	10	7/3/2019	80.0	11,264	11,684	8110	359,730	10,937	0
5UH	11	7/3/2019	79.0	11,724	12,067	8237	363,127	10,002	0
5UH	12	7/3/2019	79.8	11,569	11,851	8227	360,400	10,898	0
5UH	13	7/4/2019	74.0	11,310	11,924	7844	360,678	9,859	0
5UH	14	7/4/2019	79.6	11,591	12,325	8077	360,080	10,201	0
5UH	15	7/5/2019	79.7	11,402	12,012	8282	359,080	9,988	0
5UH	16	7/5/2019	74.6	11,284	12,195	8012	359,710	10,328	0
5UH	17	7/5/2019	79.7	11,691	12,418	7860	360,200	10,063	0
5UH	18	7/6/2019	75.3	10,661	11,941	7860	359,410	11,086	0
5UH	19	7/6/2019	75.0	11,020	11,433	7894	359,100	9,907	0
5UH	20	7/7/2019	75.3	10,515	11,786	7908	360,330	9,604	0
5UH	21	7/7/2019	77.2	10,909	11,596	8062	358,720	9,646	0
5UH	22	7/7/2019	79.0	11,217	11,457	8159	364,212	9,747	0
5UH	23	7/7/2019	78.0	11,198	12,379	8149	359,167	10,012	0
5UH	24	7/8/2019	80.3	11,100	11,627	77984	361,900	9,943	0
5UH	25	7/9/2019	77.0	10,742	12,136	7455	361,211	9,591	0
5UH	26	7/9/2019	74.5	10,914	11,647	7972	359,077	11,054	0
5UH	27	7/9/2019	80.0	10,847	12,119	7620	360,124	9,896	0
5UH	28	7/10/2019	79.0	10,578	11,740	7607	360,094	9,979	0
5UH	29	7/11/2019	80.0	10,704	12,101	7923	360,720	9,992	0
5UH	30	7/11/2019	79.0	10,696	11,277	7635	360,025	9,789	0
5UH	31	7/11/2019	83.0	10,857	12,411	7476	359,613	9,866	0
5UH	32	7/12/2019	84.0	10,613	12,266	7940	359,340	9,810	0
5UH	33	7/12/2019	79.0	10,453	12,125	7419	360,180	10,635	0
5UH	34	7/13/2019	80.0	10,307	12,412	8011	360,320	9,803	0
5UH	35	7/13/2019	73.0	10,235	11,272	8121	359,760	9,765	0
5UH	36	7/13/2019	69.0	9,570	12,216	7872	360,732	10,051	0
5UH	37	7/14/2019	84.0	10,965	12,282	7951	360,140	9,651	0
5UH	38	7/14/2019	57.0	10,586	12,480	7805	357,920	17,126	0
5UH	39	7/15/2019	65.0	10,660	12,677	7684	362,200	11,489	0
5UH	40	7/15/2019	71.0	10,320	11,744	7896	360,499	10,424	0
5UH	41	7/16/2019	84.0	11,076	11,974	7576	360,320	9,926	0
5UH	42	7/16/2019	75.0	10,265	13,592	7754	360,220	10,236	0
5UH	43	7/17/2019	74.6	10,479	12,235	7814	359,260	9,852	0
5UH	44	7/18/2019	81.1	10,898	12,326	7930	355,508	10,033	0
5UH	45	7/18/2019	82.0	10,688	11,308	8146	361,440	9,881	0
5UH	46	7/18/2019	78.5	10,747	11,405	8188	360,020	9,920	0
5UH	47	7/19/2019	82.2	10,755	12,224	8018	359,832	10,043	0
5UH	48	7/19/2019	81.0	11,020	11,735	8194	360,140	9,931	0
5UH	49	7/19/2019	81.3	11,036	11,808	8263	360,004	9,727	0
5UH	50	7/20/2019	81.9	10,768	12,225	7859	360,019	9,983	0
5UH	51	7/20/2019	81.0	10,510	11,450	7408	360,700	9,881	0
5UH	52	7/20/2019	76.0	10,092	11,695	6584	358,760	9,347	0

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/27/2019
Job End Date:	7/20/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02071-00-00
Operator Name:	American Petroleum Partners Operating, LL
Well Name and Number:	Casterly Rock-5UH
Latitude:	39.96622091
Longitude:	-80.66554589
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,441
Total Base Water Volume (gal):	22,718,472
Total Base Non Water Volume:	117,758

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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	88.54525	
Other Chemical (s)	Listed Above	See Trade Name (s) List					
			Water	7732-18-5	100.00000	0.01769	

				Water	7732-18-5	97.00000	0.01894	
				Water	7732-18-5	92.50000	0.01497	
				Water	7732-18-5	85.00000	0.33596	
CI-150	FTSI	Acid Corrosion Inhibitor			Listed Below			
100 Mesh Sand	FTSI	Proppant			Listed Below			
FRACWAVE HVS	FTSI	Viscosifier			Listed Below			
0.1%-7.5% HCL	FTSI	Acid			Listed Below			
Bactron K-139	FTSI	Biocide			Listed Below			
CS-750 SI	FTSI	Scale Inhibitor			Listed Below			
40/70 White	FTSI	Proppant			Listed Below			

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10.1%-15.0% HCL	FTSI	Acid							
				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	8.75019			
		Silica, Quartz		14808-60-7	100.00000	2.21213			
		Hydrogen Chloride		7647-01-0	15.00000	0.05929			
		Petroleum distillates, hydrotreated light		64742-47-8	60.00000	0.02561			
		Friction Reducer		Proprietary	40.00000	0.01708			
		Proprietary Scale Inhibitor		Proprietary	10.00000	0.00195			
		Quaternary ammonium compound		68424-85-1	10.00000	0.00177			
		Hydrogen Chloride		7647-01-0	7.50000	0.00121			
		Methanol		67-56-1	90.00000	0.00098			
		Ethanol		64-17-5	5.00000	0.00088			
		Glutaraldehyde		111-30-8	5.00000	0.00088			
		Fatty Acids, Tall Oil		61790-12-3	10.00000	0.00011			
		Alcohol Ethoxylate Surfactants		Proprietary	10.00000	0.00011			
		Thiourea-formaldehyde Copolymer		68527-49-1	10.00000	0.00011			
		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

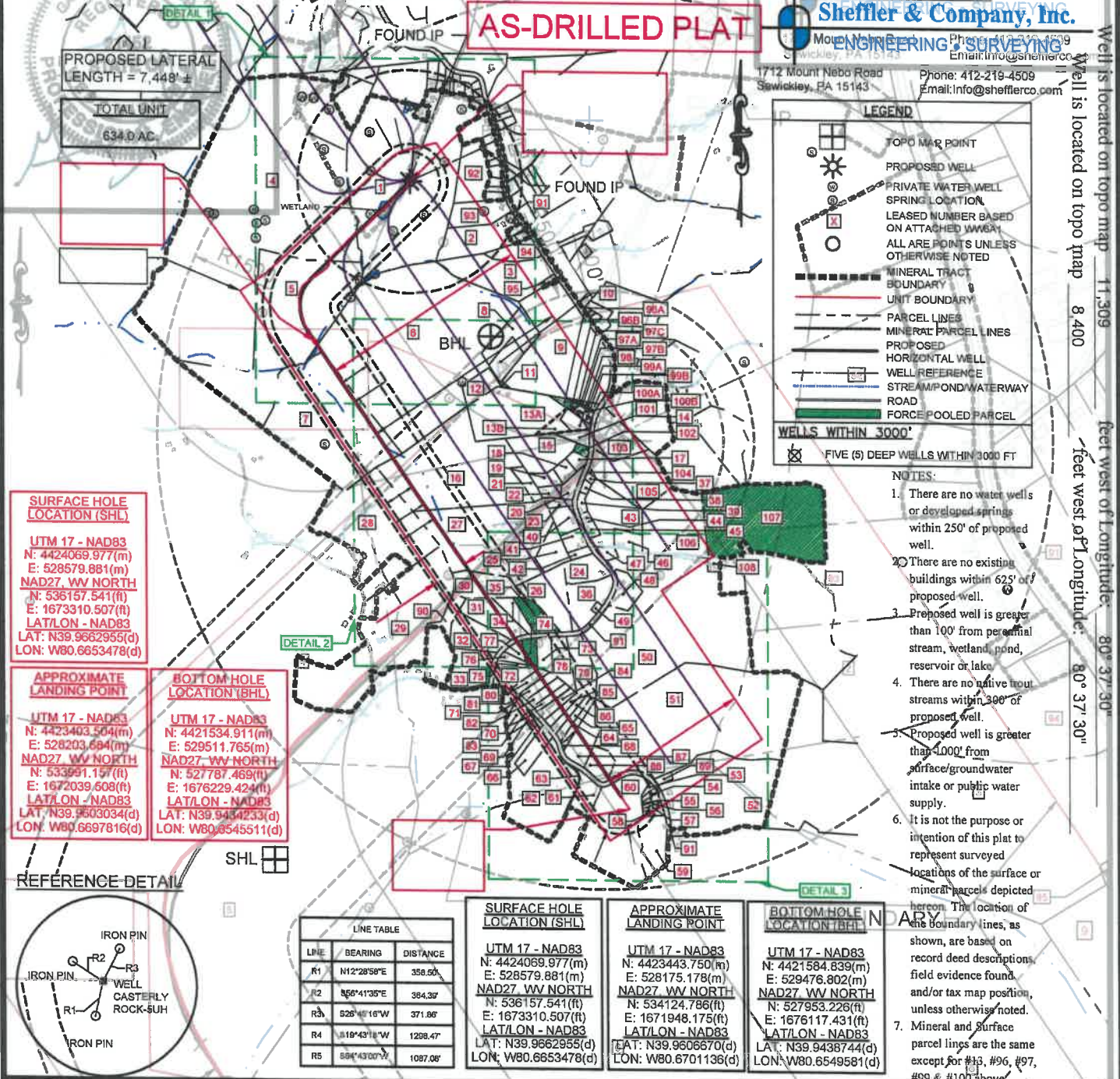
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.  
 Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Surface Hole Well is located on topo map 12.278 -- feet south of Latitude: 40° 00' 00"  
 Bottom Hole Well is located on topo map 5.267 -- feet south of Latitude: 39° 57' 30"

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

**AS-DRILLED PLAT**



**LEGEND**

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

**WELLS WITHIN 3000'**

- FIVE (5) DEEP WELLS WITHIN 3000 FT

- 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 4000' 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 except for #13, #96, #97, #99 & #100 above.

**SURFACE HOLE LOCATION (SHL)**

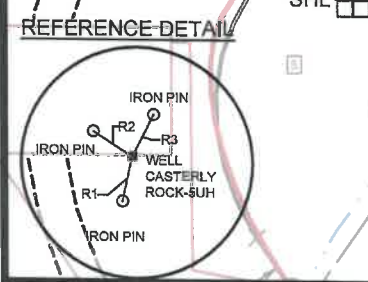
UTM 17 - NAD83  
 N: 4424069.977(m)  
 E: 528579.881(m)  
 NAD27, W W NORTH  
 N: 536157.541(ft)  
 E: 1673310.507(ft)  
 LAT/LON - NAD83  
 LAT: N39.9662955(d)  
 LON: W80.6653478(d)

**APPROXIMATE LANDING POINT**

UTM 17 - NAD83  
 N: 4423403.504(m)  
 E: 528203.694(m)  
 NAD27, W W NORTH  
 N: 533991.157(ft)  
 E: 1672039.608(ft)  
 LAT/LON - NAD83  
 LAT: N39.9603034(d)  
 LON: W80.6697816(d)

**BOTTOM HOLE LOCATION (BHL)**

UTM 17 - NAD83  
 N: 4421534.911(m)  
 E: 529511.765(m)  
 NAD27, W W NORTH  
 N: 527787.469(ft)  
 E: 1676229.424(ft)  
 LAT/LON - NAD83  
 LAT: N39.9454233(d)  
 LON: W80.6545511(d)



**LINE TABLE**

LINE	BEARING	DISTANCE
R1	N12°28'59"E	358.50'
R2	S66°41'36"E	384.39'
R3	S26°46'16"W	371.86'
R4	N19°43'11"W	1298.47'
R5	S84°43'00"W	1087.06'

**SURFACE HOLE LOCATION (SHL)**

UTM 17 - NAD83  
 N: 4424069.977(m)  
 E: 528579.881(m)  
 NAD27, W W NORTH  
 N: 536157.541(ft)  
 E: 1673310.507(ft)  
 LAT/LON - NAD83  
 LAT: N39.9662955(d)  
 LON: W80.6653478(d)

**APPROXIMATE LANDING POINT**

UTM 17 - NAD83  
 N: 4423443.750(m)  
 E: 528175.178(m)  
 NAD27, W W NORTH  
 N: 534124.766(ft)  
 E: 1671948.175(ft)  
 LAT/LON - NAD83  
 LAT: N39.9606670(d)  
 LON: W80.6701136(d)

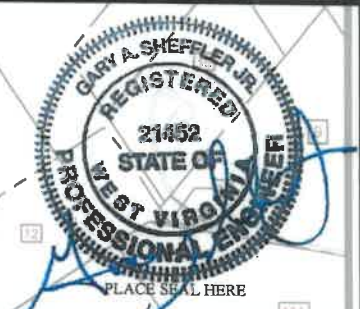
**BOTTOM HOLE LOCATION (BHL)**

UTM 17 - NAD83  
 N: 4421584.839(m)  
 E: 529476.802(m)  
 NAD27, W W NORTH  
 N: 527953.226(ft)  
 E: 1676117.431(ft)  
 LAT/LON - NAD83  
 LAT: N39.9438744(d)  
 LON: W80.6549581(d)

FILE#: GASTERLY ROCK-5UH  
 DRAWING#: CRSW-5UH-AS-DRILLED.DWG  
 SCALE: 1"=2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE  USGS MONUMENT OF ELEVATION: 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.

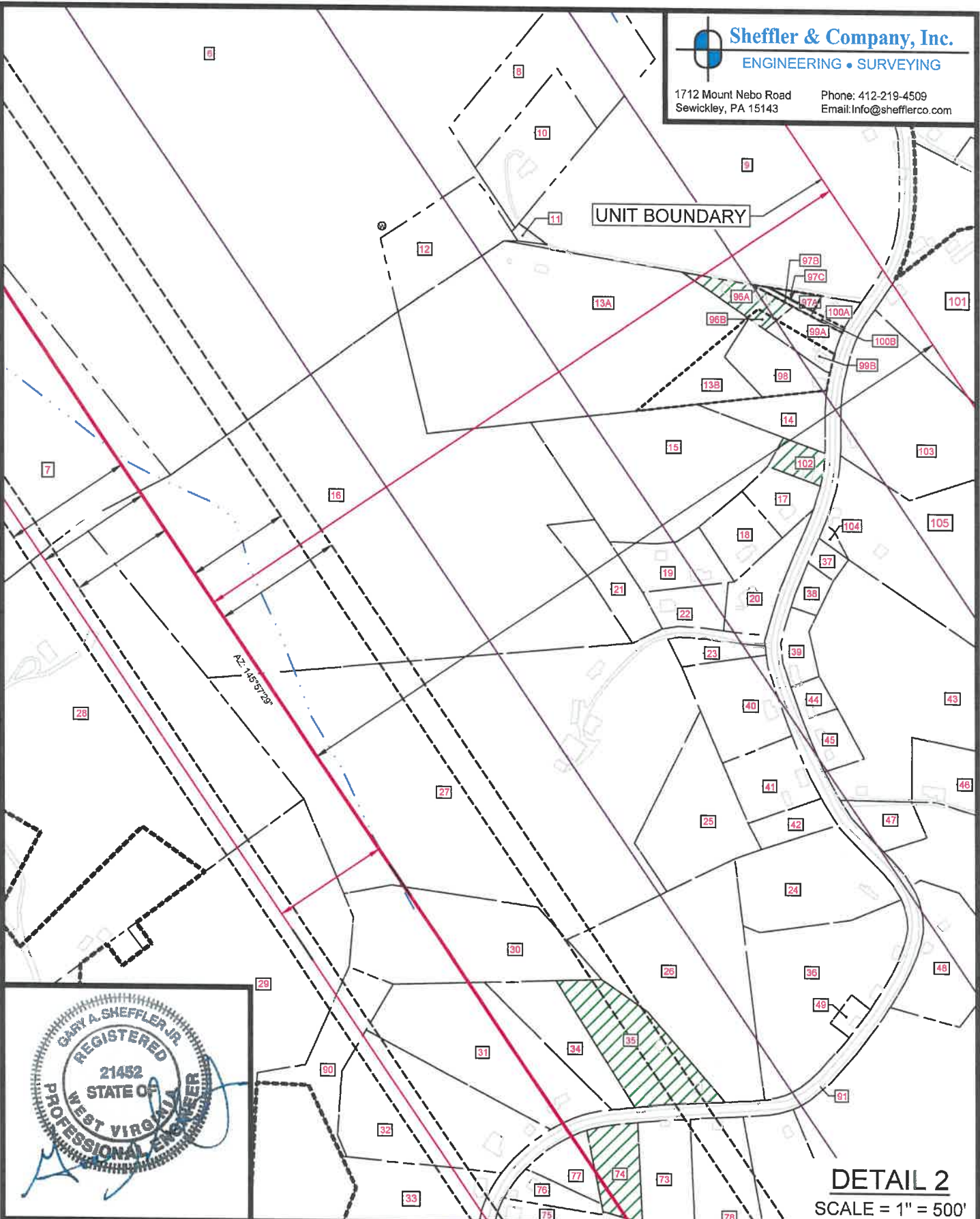
SIGNED: *[Signature]*  
 R.P.E.: 21452 L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS W W DEP OFFICE OF OIL & GAS 669 1/2 57TH STREET CHARLESTON, WV 25304  
 Well Type:  Oil  Waste Disposal  Gas  Liquid Injection  Production  Storage  Deep  Shallow  
 W WATERSHED: SHORT CREEK OHIO RIVER  
 COUNTY/DISTRICT: MARSHALL UNION  
 SURFACE OWNER: LESLIE B. & LORDE SCHABER  
 OIL & GAS ROYALTY OWNER: CAROLA WENSYEL W/ CAROLA MILLER ACTING AS TRUSTEE FOR THE CAROLA 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: November 14, 2018 AS-DRILLED July 15, 2019  
 OPERATOR'S WELL#: CASTERLY ROCK-5UH  
 AAPI WELL#: 477 0961 092071  
 STATE COUNTY PERMIT  
 ORIGINAL ELEVATION: 1,338.53' AS-DRILLED ELEVATION: 1,312.1'  
 QUADRANGLE: MOUNDSVILLE WV  
 ACREAGE: 73.79

DRILL  CONVERT  DRILL DEEPER  REBRILL  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  
 WELL OPERATOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC  
 ADDRESS: 4600 J. BARRY COURT, SUITE 810  
 CITY: CANONSBURG STATE: PA ZIP CODE: 15117  
 ESTIMATED DEPTH: TVD: 11895 ± TIVD: 20564 ±  
 DESIGNATED AGENT: STEVEN GREEN  
 ADDRESS: 3000 SUMMERS ST, SUITE 1000  
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301



**DETAIL 2**  
 SCALE = 1" = 500'

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



DATE: November 14, 2018 - AS-DRILLED July 15, 2019

OPERATOR'S WELL #: CASTERLY ROCK-5UH

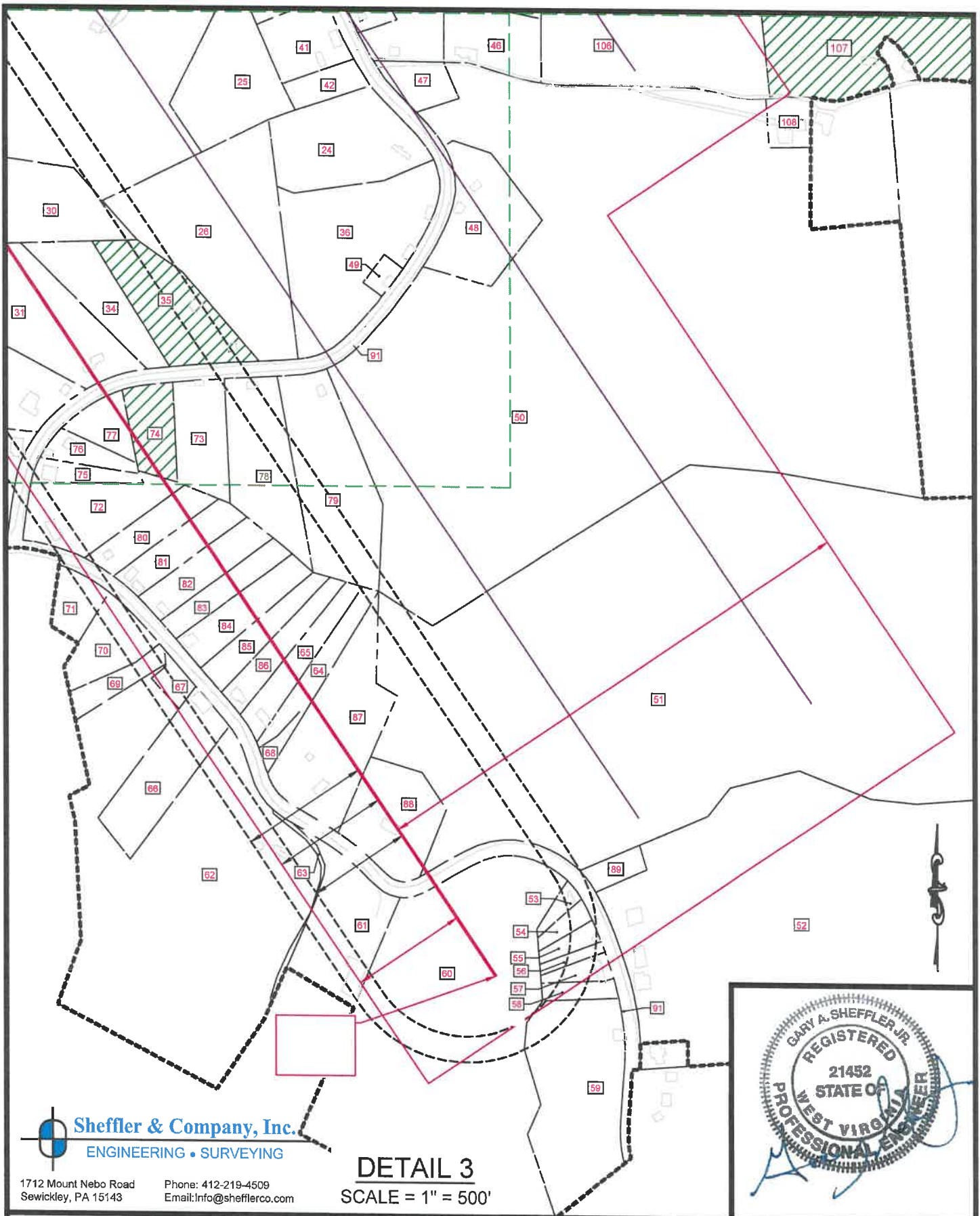
API WELL # 47 051 02071  
 STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK - OHIO RIVER ORIGINAL ELEVATION: 1,338.53' AS-DRILLED ELEVATION: 1,312.1'  
 COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV  
 SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 73.79  
 OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL AKA 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: 20,554' ±  
 WELL OPERATOR: AMERICAN PETROLEUM PARTNERS OPERATING, 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



**Sheffler & Company, Inc.**  
ENGINEERING • SURVEYING

1712 Mount Nebo Road  
Sewickley, PA 15143  
Phone: 412-219-4509  
Email: info@shefflerco.com

**DETAIL 3**  
SCALE = 1" = 500'

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



DATE: November 14, 2018 - AS-DRILLED July 15, 2019

OPERATOR'S WELL #: CASTERLY ROCK-5UH

API WELL # 47 051 02071  
STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK - OHIO RIVER ORIGINAL ELEVATION: 1,338.53' AS-DRILLED ELEVATION: 1,312.1'

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

SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 73.79

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