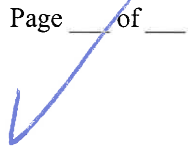


State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work



API 47-051-01767 County Marshall District Sandhill
Quad Valley Grove Pad Name SHL 22 Field/Pool Name NA
Farm name Consol Mining Co. (CONSOL) Well Number SHL 22 HHS
Operator (as registered with the OOG) Noble Energy, Inc.
Address 1000 Noble Energy Drive 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 4429072.219 Easting 536145.950
Landing Point of Curve Northing 4429351.531 Easting 536396.783
Bottom Hole Northing 4427597.294 Easting 537678.666

Elevation (ft) 1322 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 Based

Date permit issued 11/20/2014 Date drilling commenced 04/22/2015 Date drilling ceased 06/11/2015
Date completion activities began 12/21/2016 Date completion activities ceased 01/14/2017
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

RECEIVED
Office of Oil and Gas
APR 07 2017

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug
Freshwater depth(s) ft 210 Open mine(s) (Y/N) depths none
Salt water depth(s) ft None noted for Offsets Void(s) encountered (Y/N) depths none
Coal depth(s) ft no coal Cavern(s) encountered (Y/N) depths none

WV Department of
Environmental Protection

Is coal being mined in area (Y/N) _____
APPROVED
NAME: John Underwood
DATE: 5/2/17

Reviewed by: [Signature]
05/26/2017

API 47- 051 - 01767 Farm name Consol Mining Co. (CONSOL) Well number SHL 22 HHS

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				
Surface	17 1/2	13 3/8	1216.7	N	J-55 54.5#		Y
Coal							
Intermediate 1	12 3/8	9 5/8	3163.2	N	HCK-55 36#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4	5 1/2	14,408.5	N	P-110 20#		Y
Tubing							
Packer type and depth set							

Comment Details Water String -Casing Size 20, Depth, 415.3 New Grade wt/ft J-55 94#

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							
Surface	Class A	Water String 527 Surf 1084	Water String 15.6 Surf 15.6	Water String 1.20 Surf 1.20	Water String 113.0 Surf 232.0	0	8/8
Coal							
Intermediate 1	Class A	1281	15.6	1.10	251.0	0	8
Intermediate 2							
Intermediate 3							
Production	Class A	2345	14.5	1.31	547.0	939.0	8
Tubing							

Drillers TD (ft) 14,009 Loggers TD (ft) 13,920
 Deepest formation penetrated Marcellus Plug back to (ft) Not a Pilot Hole
 Plug back procedure Not a Pilot Hole

Kick off depth (ft) 5,857

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 - No centralizers used. Water String 4 Bow Spring Centralizers used. Fresh Water?
 Surface - 10 bow spring centralizers used, one every third joint Intermediate - 58 bow spring centralizers on every third joint from KOP to 100' from surface.
 Production - 223 Bow Spring Centralizers - rigid bow spring every third joint from KOP to TOC, rigid bow spring every joint 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 _____

Perforations

API	Well Name	Date	Top (ftKB)	Btm (ftKB)	Com	Entered Shot Total	Est Hole Dia (in)
47-051-01767	SHL-22H-HS	1/4/2017	8,330.00	8,498.00	STG #29	50	
47-051-01767	SHL-22H-HS	1/4/2017	8,546.00	8,684.00	STG #28	44	
47-051-01767	SHL-22H-HS	1/4/2017	8,718.00	8,889.00	STG #27	50	
47-051-01767	SHL-22H-HS	1/4/2017	8,913.00	9,082.00	STG #26	50	
47-051-01767	SHL-22H-HS	1/3/2017	9,109.00	9,280.00	STG #25	50	
47-051-01767	SHL-22H-HS	1/3/2017	9,304.00	9,475.00	STG #24	50	
47-051-01767	SHL-22H-HS	1/3/2017	9,499.00	9,671.00	STG #23	50	
47-051-01767	SHL-22H-HS	1/3/2017	9,695.00	9,866.00	STG #22	50	
47-051-01767	SHL-22H-HS	1/3/2017	9,890.00	10,061.00	STG #21	50	
47-051-01767	SHL-22H-HS	1/2/2017	10,085.00	10,257.00	STG #20	50	
47-051-01767	SHL-22H-HS	1/2/2017	10,281.00	10,452.00	STG #19	50	
47-051-01767	SHL-22H-HS	1/2/2017	10,476.00	10,647.00	STG #18	50	
47-051-01767	SHL-22H-HS	12/30/2017	10,672.00	10,843.00	STG #17	50	
47-051-01767	SHL-22H-HS	12/29/2017	10,867.00	11,038.00	STG #16	50	
47-051-01767	SHL-22H-HS	12/29/2016	11,062.00	11,233.00	STG #15	50	
47-051-01767	SHL-22H-HS	12/29/2016	11,258.00	11,429.00	STG #14C	50	
47-051-01767	SHL-22H-HS	12/28/2017	11,453.00	11,479.00	STG #14B	50	
47-051-01767	SHL-22H-HS	12/28/2017	11,517.00	11,691.00	STG #14	50	
47-051-01767	SHL-22H-HS	12/28/2016	11,720.00	11,885.00	STG #13	50	
47-051-01767	SHL-22H-HS	12/28/2016	11,913.00	12,087.00	STG #12	50	
47-051-01767	SHL-22H-HS	12/27/2016	12,112.00	12,285.00	STG #11	50	
47-051-01767	SHL-22H-HS	12/27/2016	12,310.00	12,484.00	STG #10	50	
47-051-01767	SHL-22H-HS	12/26/2016	12,513.00	12,677.00	STG #9	50	
47-051-01767	SHL-22H-HS	12/24/2016	12,706.00	12,880.00	STG #8	50	
47-051-01767	SHL-22H-HS	12/23/2017	12,906.00	13,078.00	STG #7	50	
47-051-01767	SHL-22H-HS	12/23/2017	13,103.00	13,277.00	STG #6	50	
47-051-01767	SHL-22H-HS	12/23/2016	13,301.00	13,475.00	STG #5	50	
47-051-01767	SHL-22H-HS	12/22/2016	13,499.00	13,669.00	STG #4	50	
47-051-01767	SHL-22H-HS	12/22/2017	13,698.00	13,866.00	STG #3	50	
47-051-01767	SHL-22H-HS	12/22/2016	13,896.00	14,070.00	STG #2	50	
47-051-01767	SHL-22H-HS	12/21/2016	14,094.00	14,268.00	STG #1	50	

Well Header
 API: 47-051-01767

Well Name: SHL-22H-HS

WR-35 - Stimulation Information Per Stage		Start Date	Slurry Rate Avg (bbl/min)	P Treat Avg (psi)	P Breakdown (psi)	ISIP (psi)	Propanant Deliver (lb)	Vol Slurry Total (gal)
Int Des								
STG #1 [IN] TEST	12/21/2016	13.9	7,784.00					18,942.00
STG #1	12/21/2016	87.5	7,677.00	6,074.00	4,001.00	520,797.00		465,456.60
STG #2	12/22/2016	92.8	7,947.00	6,165.00	4,105.00	616,233.00		655,741.80
STG #3	12/22/2016	94.7	7,911.00	5,493.00	3,960.00	602,771.00		561,304.80
STG #4	12/23/2016	92.9	8,014.00	6,199.00	5,168.00	600,116.00		483,315.00
STG #5	12/23/2016	96.6	8,320.00	6,363.00	4,524.00	603,048.00		479,698.80
STG #6	12/24/2016	92.5	8,220.00	6,081.00	4,532.00	601,678.00		442,759.80
STG #7	12/24/2016	94.9	8,191.00	6,715.00	4,423.00	602,836.00		481,882.80
STG #8	12/26/2016	90.1	7,614.00	6,128.00	4,539.00	598,125.00		237,034.98
STG #9	12/27/2016	90.6	7,816.00	6,552.00	5,061.00	583,874.00		494,776.80
STG #10	12/27/2016	96.6	8,091.00	6,371.00	4,365.00	603,178.00		484,566.60
STG #11	12/27/2016	97	7,966.00	5,259.00	4,712.00	600,479.00		475,780.20
STG #12	12/28/2016	99.4	7,942.00	4,862.00	4,616.00	600,374.00		489,321.00
STG #13	12/28/2016	90.9	8,114.00	6,265.00	4,562.00	594,167.00		477,346.80
STG #14A	12/28/2016	75.1	8,473.00	5,213.00	5,362.00	78,053.00		213,696.00
STG #14B	12/29/2016	58	7,833.00	6,560.00	5,876.00	143,610.00		511,980.00
STG #14C	12/29/2016	63.8	8,118.00	6,933.00	6,723.00	168,422.00		498,876.00
STG #15	12/29/2016	78.7	7,946.00	6,130.00	4,128.00	595,311.00		453,024.60
STG #16	12/30/2016	96.8	7,702.00	5,161.00	4,436.00	600,508.00		481,374.60
STG #17	1/2/2017	88.6	7,717.00	5,537.00	4,137.00	602,327.00		500,278.80
STG #18	1/2/2017	82.6	7,298.00	5,171.00	4,467.00	544,233.00		436,774.80
STG #19	1/2/2017	88.5	7,668.00	5,585.00	4,367.00	602,006.00		456,010.80
STG #20	1/2/2017	90.1	7,513.00	5,854.00	4,786.00	600,442.00		471,912.00
STG #21	1/3/2017	90.4	7,475.00	5,547.00	4,622.00	605,884.00		476,716.80
STG #22	1/3/2017	89.1	7,340.00	5,214.00	4,746.00	589,148.00		441,772.80
STG #23	1/3/2017	97.1	7,632.00	5,177.00	4,600.00	600,739.00		520,090.20
STG #24	1/3/2017	96.9	7,659.00	5,754.00	4,202.00	617,106.00		496,553.40
STG #25	1/3/2017	94.7	7,596.00	5,617.00	4,134.00	601,056.00		528,439.80
STG #26	1/4/2017	94.3	7,680.00	5,574.00	4,169.00	600,887.00		479,148.60
STG #27	1/4/2017	98.2	7,499.00	5,495.00	4,970.00	598,618.00		454,326.60
STG #28	1/4/2017	96.4	7,626.00	6,801.00	4,410.00	598,363.00		521,984.40
STG #29	1/4/2017	92.6	7,673.00	5,324.00	4,727.00	555,220.00		568,545.60
STG #30A	1/12/2017	81.8	7,974.00	5,359.00	5,503.00	114,800.00		261,063.60
STG #30B	1/12/2017	88.8	7,124.00	5,370.00	4,747.00	543,330.00		503,878.20
STG #31	1/12/2017	86.5	7,714.00	5,769.00	4,435.00	598,454.00		714,067.20
STG #32	1/13/2017	90.4	7,237.00	6,336.00	4,579.00	599,316.00		486,977.40
STG #33	1/13/2017	95.1	7,170.00	6,384.00	4,638.00	600,158.00		478,808.40
STG #34	1/13/2017	96.1	7,235.00	4,584.00	4,407.00	598,805.00		471,471.00
STG #35	1/14/2017	96.7	7,321.00	6,027.00	4,533.00	602,543.00		531,699.00

API 47- 051 - 01767 Farm name Consol Mining Co. (CONSOL) Well number SHL 22 HHS

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6,682</u>	<u>TVD</u>	<u>14,009</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 3482 mcfpd Oil 57 bpd NGL 194 bpd Water 406 bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company
Address 5400 D Big Tyler Road City Charleston State WV Zip 25313

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company Schlumberger
Address 4600 J Barry Court, Suite 200 City Canonsburg State PA Zip 15317

Stimulating Company Halliburton Energy Services
Address 121 Champion Way, Suite 110 City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Regina A Logue Telephone 724-820-3559
Signature Regina A. Logue Title Regulatory Analyst Date 3/29/17

SHL 22 HHS

Formations	Top	Base
Shale	0	782
Pittsburgh Coal	782	792
Shale and Sandstone	792	1253
Gas Sand	1253	1282
Shale	1282	1383
1st Salt Sand	1383	1464
Shale	1464	1570
2nd Salt Sand	1570	1584
Shale	1584	1616
3rd Salt Sand	1616	1634
Shale	1634	1663
Maxton Sand	1663	1794
Shale	1794	1850
Big Lime	1850	1968
Big Injun	1968	2095
Price	2095	2449
Murrysville	2449	2457
Shale	2457	2731
Gordon	2731	2738
Shale	2738	2839
Fifth Sand	2839	2866
Shale	2866	3266
Speechley Sand	3266	3290
Shale	3290	4174
Warren Sand	4174	4188
Shale	4188	5095
Java Shale	5095	5165
Pipe Creek Shale	5165	5209
Angola Shale	5209	5835
Rhinestreet	5835	6249
Cashaqua	6249	6341
Middlesex	6341	6378
West River	6378	6419
Burkett	6419	6452
Tully Limestone	6452	6480
Hamilton	6480	6594
Marcellus	6594	6645
Onondaga	6645	

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	2016-12-26
State	West Virginia
County	Marshall
API Number	4705101808
Operator Name	NOBLE ENERGY
Well Name and Number	SHL22 H
Longitude	0
Latitude	0
Long/Lat Projection	
Indian/Federal	none
Production Type	
True Vertical Depth (TVD)	6,682
Total Water Volume (gal)*	17,895,906

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)**	Ingredient Mass lbs	Comments	Company
Fresh Water	Operator	Base Fluid	Water	7732-18-5	100.00%	87.25700%	149251360	Density = 8.340	
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive	Listed Below	Listed Below			0	NA	
FR-78	Halliburton	Friction Reducer	Listed Below	Listed Below			0	NA	
FR-A12	Halliburton	Additive	Listed Below	Listed Below			0	NA	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Listed Below	Listed Below			0	NA	
HYDROCHLORIC ACID	Halliburton	Solvent	Listed Below	Listed Below			0	NA	
OILPERM A	Halliburton	Non-ionic Surfactant	Listed Below	Listed Below			0	NA	
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant	Listed Below	Listed Below			0	NA	
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant	Listed Below	Listed Below			0	NA	
*MSDS and Non-MSDS ingredients are listed below the green line									
Ingredients	Listed Above	Listed Above	1,2,4 Trimethylbenzene	95-63-6	1.00%	0.00001%	14		
			Acetic acid	64-19-7	60.00%	0.00142%	2436		
			Acetic anhydride	108-24-7	100.00%	0.00237%	4059		
			Alcohols, C12-16, ethoxylated	68551-12-2	5.00%	0.00301%	5152		
			Amide	Proprietary	5.00%	0.00301%	5152	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226	Halliburton
			Ammonium chloride	12125-02-9	1.00%	0.00060%	1031		
			Crystalline silica, quartz	14808-60-7	100.00%	12.15466%	20790296		
			Ethanol	64-17-5	60.00%	0.00048%	818		
			Ethoxylated alcohols	Proprietary	30.00%	0.00012%	203		Halliburton
			Fatty acid ester	Proprietary	1.00%	0.00060%	1031		Halliburton

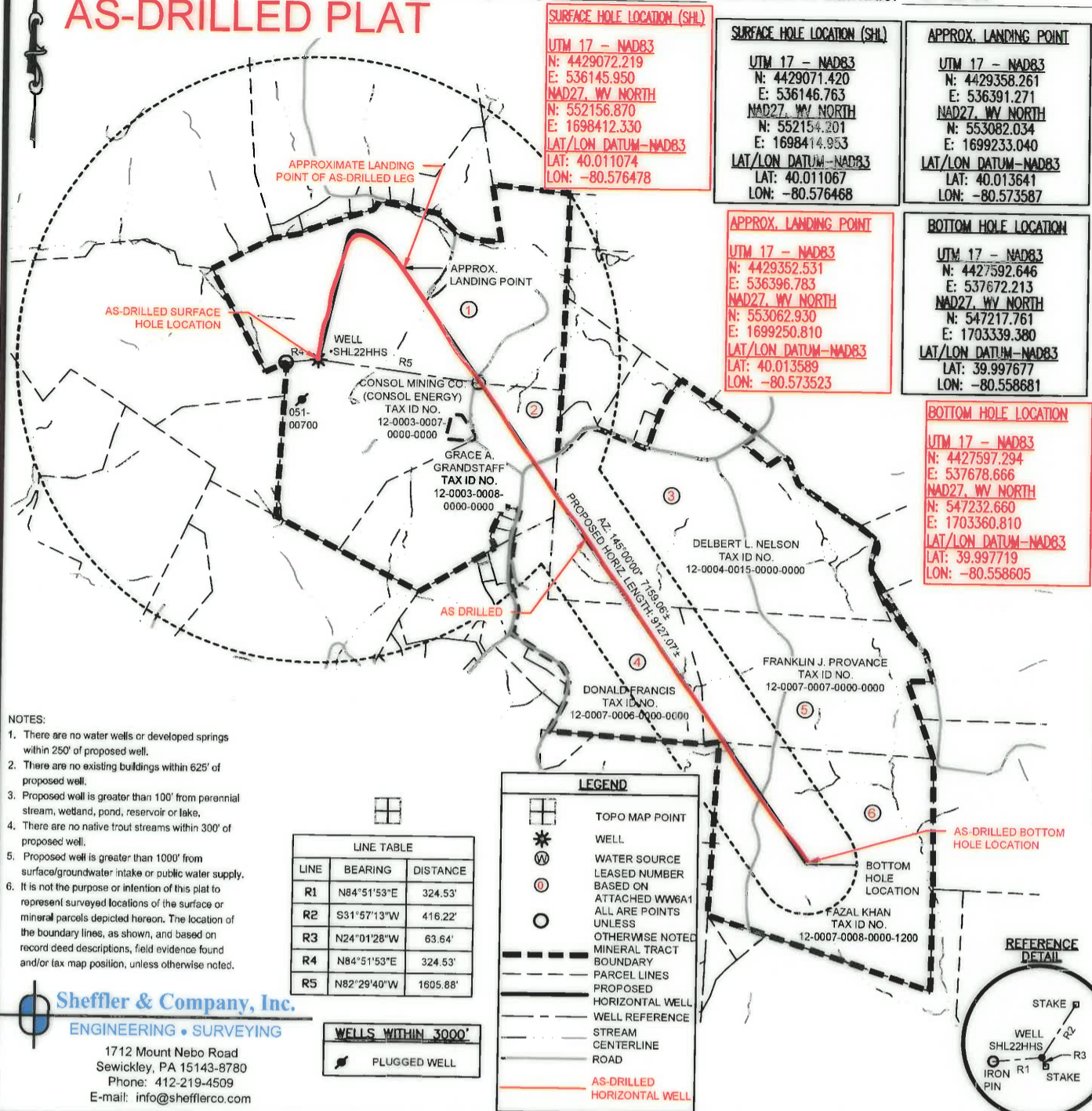
05/26/2017

AS-DRILLED PLAT

Well is located on topo map 11,146

feet south of Latitude: 40° 02' 30"

Well is located on topo map 9,754 feet west of Longitude: 80° 32' 30"



- NOTES:
1. There are no water wells or developed springs within 250' of proposed well.
 2. There are no existing buildings within 625' of proposed well.
 3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 4. There are no native trout streams within 300' of proposed well.
 5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 6. 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, and based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LINE	BEARING	DISTANCE
R1	N84°51'53"E	324.53'
R2	S31°57'13"W	416.22'
R3	N24°01'28"W	63.64'
R4	N84°51'53"E	324.53'
R5	N82°29'40"W	1605.88'

LEGEND

- TOPO MAP POINT
- WELL
- WATER SOURCE
- LEASED NUMBER BASED ON ATTACHED WV6A1
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- PROPOSED HORIZONTAL WELL
- WELL REFERENCE
- STREAM
- CENTERLINE
- ROAD
- AS-DRILLED HORIZONTAL WELL

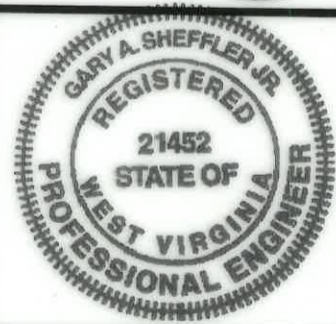
Sheffler & Company, Inc.
 ENGINEERING • SURVEYING
 1712 Mount Nebo Road
 Sewickley, PA 15143-8780
 Phone: 412-219-4509
 E-mail: info@shefflerco.com

WELLS WITHIN 3000'
 PLUGGED WELL

FILE #: SHL 22 HHS
 DRAWING #: SHL 22 HHS
 SCALE: 1"=1500'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT WILSON KNOB 1462.02

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

DATE: MARCH 13, 2017
 OPERATOR'S WELL #: SHL 22 HHS - AS DRILLED
 API WELL # 47 051 01767
 STATE COUNTY PERMIT

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

WATERSHED: WHEELING CREEK ELEVATION: 1322'
 COUNTY/DISTRICT: MARSHALL / SAND HILL QUADRANGLE: VALLEY GROVE, W. VA.
 SURFACE OWNER: CONSOL MINING CO. (CONSOL ENERGY) ACREAGE: 170.55
 OIL & GAS ROYALTY OWNER: CNX GAS COMPANY, LLC, ET AL. ACREAGE: 170.55

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

TARGET FORMATION: MARCELLUS
 WELL OPERATOR: NOBLE ENERGY, INC.
 Address: 1000 NOBLE ENERGY DRIVE, CANONSBURG, PA 15317
 City CANONSBURG State PA Zip Code 15317

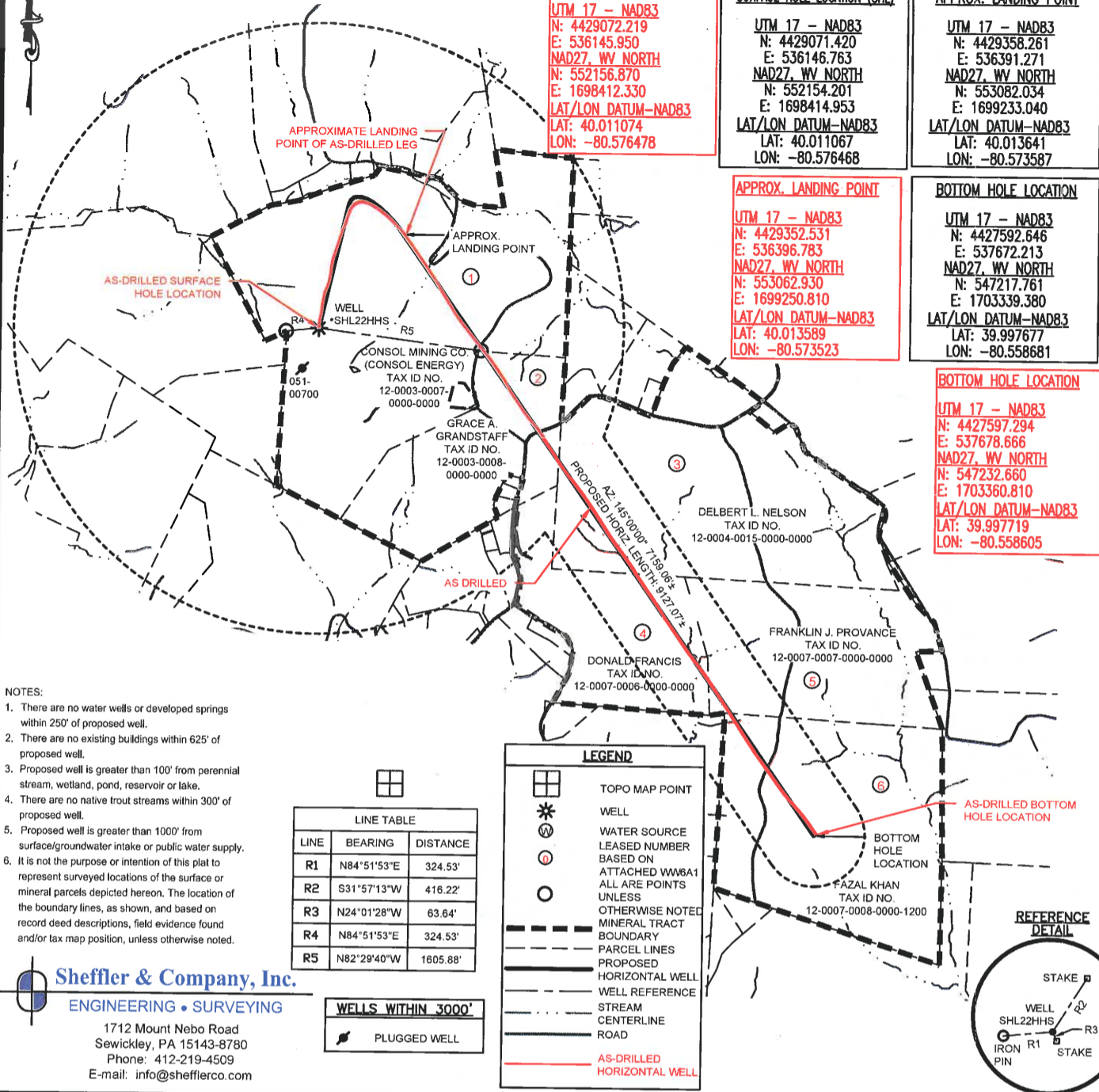
ESTIMATED DEPTH: TVD: 6,680' ± TMD: 14,533' ±
 DESIGNATED AGENT: STEVEN M. GREEN
 Address: 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 590
 City CHARLESTON State WV Zip Code 25301

05/26/2017

Well is located on topo map 11,146 feet south of Latitude: 40° 02' 30"

Well is located on topo map 9,754 feet west of Longitude: 80° 32' 30"

AS-DRILLED PLAT



Sheffler & Company, Inc.
 ENGINEERING • SURVEYING
 1712 Mount Nebo Road
 Sewickley, PA 15143-8780
 Phone: 412-219-4509
 E-mail: info@shefflerco.com

FILE #: SHL 22 HHS
 DRAWING #: SHL 22 HHS
 SCALE: 1"=1500'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT WILSON KNOB 1462.02

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

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

WATERSHED: WHEELING CREEK ELEVATION: 1322'
 COUNTY/DISTRICT: MARSHALL / SAND HILL QUADRANGLE: VALLEY GROVE, W. VA.
 SURFACE OWNER: CONSOL MINING CO. (CONSOL ENERGY) ACREAGE: 170.55
 OIL & GAS ROYALTY OWNER: CNX GAS COMPANY, LLC, ET AL. ACREAGE: 170.55



DATE: MARCH 13, 2017
 OPERATOR'S WELL #: SHL 22 HHS - AS DRILLED
 API WELL # 47 051 01767
 STATE COUNTY PERMIT

05/26/2017

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

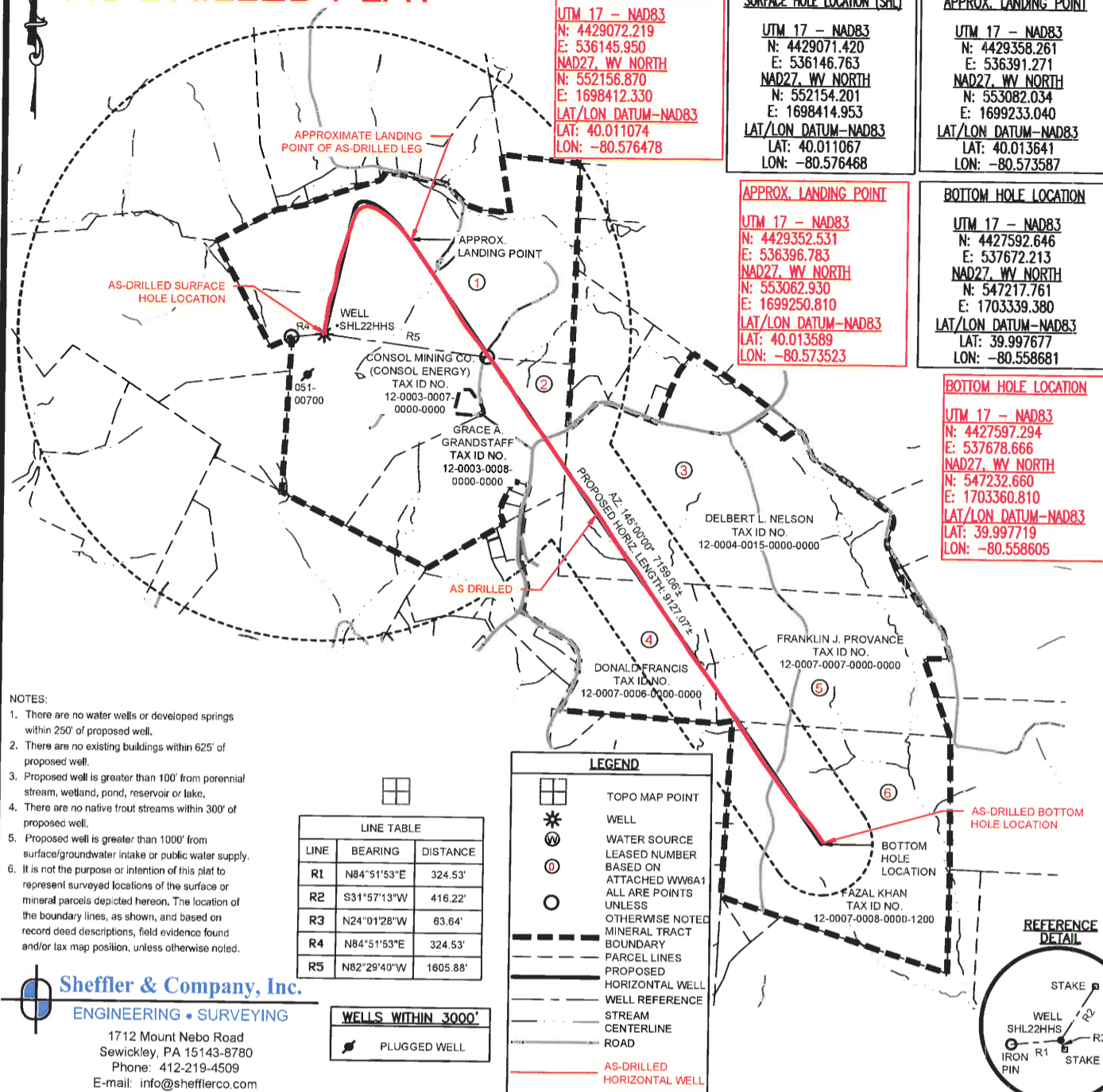
TARGET FORMATION: MARCELLUS
 WELL OPERATOR: NOBLE ENERGY, INC.
 Address: 1000 NOBLE ENERGY DRIVE, CANONSBURG, PA 15317
 City CANONSBURG State PA Zip Code 15317

ESTIMATED DEPTH: TVD: 6,680'± TMD: 14,533'±
 DESIGNATED AGENT: STEVEN M. GREEN
 Address: 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 590
 City CHARLESTON State WV Zip Code 25301

AS-DRILLED PLAT

Well is located on topo map 11,146 feet south of Latitude: 40° 02' 30"

Well is located on topo map 9,754 feet west of Longitude: 80° 32' 30"



SURFACE HOLE LOCATION (SHL)
 UTM 17 - NAD83
 N: 4429072.219
 E: 536145.950
 NAD27, WV NORTH
 N: 552156.870
 E: 1698412.330
 LAT/LON DATUM-NAD83
 LAT: 40.011074
 LON: -80.576478

SURFACE HOLE LOCATION (SHL)
 UTM 17 - NAD83
 N: 4429071.420
 E: 536146.763
 NAD27, WV NORTH
 N: 552154.201
 E: 1698414.953
 LAT/LON DATUM-NAD83
 LAT: 40.011067
 LON: -80.576468

APPROX. LANDING POINT
 UTM 17 - NAD83
 N: 4429358.261
 E: 536391.271
 NAD27, WV NORTH
 N: 553082.034
 E: 1699233.040
 LAT/LON DATUM-NAD83
 LAT: 40.013641
 LON: -80.573587

APPROX. LANDING POINT
 UTM 17 - NAD83
 N: 4429352.531
 E: 536396.783
 NAD27, WV NORTH
 N: 553062.930
 E: 1699250.810
 LAT/LON DATUM-NAD83
 LAT: 40.013589
 LON: -80.573523

BOTTOM HOLE LOCATION
 UTM 17 - NAD83
 N: 4427592.646
 E: 537672.213
 NAD27, WV NORTH
 N: 547217.761
 E: 1703339.380
 LAT/LON DATUM-NAD83
 LAT: 39.997677
 LON: -80.558681

BOTTOM HOLE LOCATION
 UTM 17 - NAD83
 N: 4427597.294
 E: 537678.666
 NAD27, WV NORTH
 N: 547232.660
 E: 1703360.810
 LAT/LON DATUM-NAD83
 LAT: 39.997719
 LON: -80.558605

- 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, and based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LINE	BEARING	DISTANCE
R1	N84°51'53"E	324.53'
R2	S31°57'13"W	416.22'
R3	N24°01'28"W	63.64'
R4	N84°51'53"E	324.53'
R5	N82°29'40"W	1605.88'

LEGEND

- TOPO MAP POINT
- WELL
- WATER SOURCE
- LEASED NUMBER
- BASED ON ATTACHED WW6A1
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- PROPOSED HORIZONTAL WELL
- WELL REFERENCE
- STREAM CENTERLINE
- ROAD
- AS-DRILLED HORIZONTAL WELL

Sheffler & Company, Inc.
 ENGINEERING • SURVEYING
 1712 Mount Nebo Road
 Sewickley, PA 15143-8780
 Phone: 412-219-4509
 E-mail: info@shefflerco.com

FILE #: SHL 22 HHS
 DRAWING #: SHL 22 HHS
 SCALE: 1"=1500'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT WILSON KNOB 1462.02

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