



Jay-Bee Oil & Gas

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Office of Oil and Gas
JUL 28 2025
WV Department of
Environmental Protection

API 4709502885
PAD SLEEPY
WELL 1B
KB ELEV 1140.1
GL ELEV 1112.4

TVD DEPTH @ KB ELEV

FORMATION	TOP	BASE
LITTLE DUNKARD SAND	806	837
DUNKARD SAND	881	994
GAS SAND	1228	1255
1ST SALT SAND	1436	1500
2ND SALT SAND	1630	1714
3RD SALT SAND	1781	1848
LITTLE LIME	1996	2012
PENCIL CAVE	2012	2030
BIG LIME	2030	2104
BIG INJUN SAND	2104	2255
WEIR SAND	2404	2526
BEREA SAND	2661	2685
GORDON SAND	2888	2923
ELIZABETH	3572	3608
WARREN	3627	3656
RILEY	4761	5026
BENSON	5236	5241
ALEXANDER	5473	5511
THREE GR MARKER	6329	6360
BURKETT	6796	6822
TULLY LIMESTONE	6822	6825
HAMILTON SHALE	6825	6886
MARCELLUS	6886	

SS TOP	SS BASE	GL TOP	GL BASE
334	303	778	809
259	146	853	966
-88	-115	1200	1227
-296	-360	1408	1472
-490	-574	1602	1686
-641	-708	1753	1820
-856	-872	1968	1984
-872	-890	1984	2002
-890	-964	2002	2076
-964	-1115	2076	2227
-1264	-1386	2376	2498
-1521	-1545	2633	2657
-1748	-1783	2860	2895
-2432	-2468	3544	3580
-2487	-2516	3599	3628
-3621	-3886	4733	4998
-4096	-4101	5208	5213
-4333	-4371	5445	5483
-5189	-5220	6301	6332
-5656	-5682	6768	6794
-5682	-5685	6794	6797
-5685	-5746	6797	6858
-5746		6858	

Stephen Mccoy
Digitally signed by Stephen Mccoy
Date: 2025.07.23 10:23:56 -04'00'



Sleepy 1B Gyro+MWD 0ft-25591ft Survey Geodetic Report



Definitive Survey

Report Date: October 07, 2024 - 02:56 PM (UTC 0)
Client: Jay-Bee Oil and Gas
Field: WV Tyler County (NAD 83)
Structure / Slot: Jay-Bee Sleepy Pad / Sleepy 1B
Well: Sleepy 1B
Borehole: Sleepy 1B
UBHI / API / JobNumber: Unknown / Unknown / Unknown
Survey Name / Version: Sleepy 1B Gyro+MWD 0ft-25591ft / 2
Survey Date: September 20, 2024
Tort / AHD / DDI / ERD Ratio: 266.404' / 19881.162 ft / 7.285 / 2.824
Coordinate Reference System: NAD83 West Virginia State Plane, Northern Zone, US Feet
Location Lat / Long: N 39°28'31.61169" , W 80°44'20.02504"
Location Grid N/E Y/X: N 357696.425 ftUS , E 1618796.566 ftUS
CRS Grid Convergence Angle: -0.79°
Grid Scale Factor: 0.99994418(Applied)
Engine Version: 2024.4.0.4

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 153.704 °(Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 1140.100 ft above MSL
Seabed / Ground Elevation: 1112.400 ft above MSL
Magnetic Declination: -7.826°
Total Gravity Field Strength: 999.3289mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51473.434 nT
Magnetic Dip Angle: 66.199°
Declination Date: September 18, 2024
Magnetic Declination Model: HDGM 2024
North Reference: Grid
Total Corr Mag North->Grid North: -7.036°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	TVDSS (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1,140.10		357,696.43	1,618,796.57	N 39°28'31.61"	W 80°44'20.03"
First Gyro Surveys	27.70	0.00	0.00	27.70	0.00	0.00	0.00	-1,112.40	0.00	357,696.43	1,618,796.57	N 39°28'31.61"	W 80°44'20.03"
	77.70	0.98	213.24	77.70	0.22	-0.36	-0.23	-1,062.40	1.96	357,696.07	1,618,796.33	N 39°28'31.61"	W 80°44'20.03"
	127.70	1.29	222.54	127.69	0.64	-1.13	-0.85	-1,012.41	0.72	357,695.30	1,618,795.72	N 39°28'31.60"	W 80°44'20.04"
	177.70	1.61	230.52	177.67	1.00	-1.99	-1.77	-962.43	0.76	357,694.43	1,618,794.79	N 39°28'31.59"	W 80°44'20.05"
	227.70	1.19	229.88	227.66	1.28	-2.77	-2.71	-912.44	0.84	357,693.65	1,618,793.85	N 39°28'31.58"	W 80°44'20.06"
	277.70	1.07	226.48	277.65	1.55	-3.43	-3.45	-862.45	0.27	357,693.00	1,618,793.12	N 39°28'31.58"	W 80°44'20.07"
	327.70	0.92	188.50	327.64	2.01	-4.15	-3.84	-812.46	1.33	357,692.28	1,618,792.72	N 39°28'31.57"	W 80°44'20.07"
	377.70	1.31	181.80	377.63	2.85	-5.12	-3.92	-762.47	0.82	357,691.31	1,618,792.64	N 39°28'31.56"	W 80°44'20.07"
	411.70	1.54	186.44	411.62	3.58	-5.96	-3.99	-728.48	0.76	357,690.47	1,618,792.58	N 39°28'31.55"	W 80°44'20.07"
	495.00	2.21	184.76	494.87	5.89	-8.67	-4.24	-645.23	0.81	357,687.76	1,618,792.32	N 39°28'31.53"	W 80°44'20.08"
Last Gyro Surveys First 3rd Party Survey	587.00	1.31	184.92	586.83	8.31	-11.49	-4.48	-553.27	0.98	357,684.94	1,618,792.08	N 39°28'31.50"	W 80°44'20.08"
	681.00	0.59	15.06	680.82	8.87	-12.09	-4.45	-459.28	2.01	357,684.34	1,618,792.12	N 39°28'31.49"	W 80°44'20.08"
	773.00	2.75	5.60	772.78	6.64	-9.44	-4.11	-367.32	2.36	357,686.99	1,618,792.46	N 39°28'31.52"	W 80°44'20.08"
	865.00	4.40	13.64	864.60	2.06	-3.81	-3.06	-275.50	1.87	357,692.62	1,618,793.50	N 39°28'31.57"	W 80°44'20.06"
	957.00	4.77	7.45	956.30	-3.83	3.41	-1.73	-183.80	0.67	357,699.84	1,618,794.83	N 39°28'31.65"	W 80°44'20.05"
	1,050.00	4.81	10.36	1,048.98	-10.17	11.08	-0.53	-91.12	0.26	357,707.51	1,618,796.03	N 39°28'31.72"	W 80°44'20.03"
	1,142.00	4.72	8.69	1,140.66	-16.37	18.62	0.73	0.56	0.18	357,715.04	1,618,797.30	N 39°28'31.80"	W 80°44'20.02"
	1,234.00	4.71	7.58	1,232.35	-22.60	26.11	1.80	92.25	0.10	357,722.53	1,618,798.37	N 39°28'31.87"	W 80°44'20.01"
	1,326.00	4.60	2.67	1,324.05	-28.97	33.53	2.47	183.95	0.45	357,729.96	1,618,799.04	N 39°28'31.94"	W 80°44'20.00"
	1,418.00	3.74	3.83	1,415.80	-34.79	40.21	2.85	275.70	0.94	357,736.64	1,618,799.41	N 39°28'32.01"	W 80°44'20.00"
	1,511.00	2.25	4.17	1,508.67	-38.99	45.06	3.18	368.57	1.60	357,741.48	1,618,799.75	N 39°28'32.06"	W 80°44'19.99"
	1,603.00	0.56	17.06	1,600.64	-40.87	47.29	3.45	460.54	1.86	357,743.72	1,618,800.01	N 39°28'32.08"	W 80°44'19.99"
	1,696.00	0.11	119.98	1,693.64	-41.13	47.68	3.66	553.54	0.64	357,744.10	1,618,800.22	N 39°28'32.08"	W 80°44'19.99"
	1,788.00	0.67	128.10	1,785.64	-40.57	47.31	4.16	645.54	0.61	357,743.73	1,618,800.72	N 39°28'32.08"	W 80°44'19.98"
	1,880.00	1.33	146.53	1,877.62	-39.03	46.08	5.17	737.52	0.79	357,742.51	1,618,801.73	N 39°28'32.07"	W 80°44'19.97"
	1,973.00	1.24	172.87	1,970.60	-37.00	44.18	5.89	830.50	0.64	357,740.61	1,618,802.45	N 39°28'32.05"	W 80°44'19.96"
	2,065.00	0.74	203.06	2,062.59	-35.68	42.65	5.78	922.49	0.77	357,739.07	1,618,802.34	N 39°28'32.03"	W 80°44'19.96"
	2,157.00	0.44	195.89	2,154.58	-35.03	41.76	5.45	1,014.48	0.34	357,738.19	1,618,802.02	N 39°28'32.03"	W 80°44'19.96"
	2,250.00	0.59	181.83	2,247.58	-34.34	40.94	5.34	1,107.48	0.21	357,737.36	1,618,801.90	N 39°28'32.02"	W 80°44'19.96"
	2,342.00	0.72	172.32	2,339.57	-33.37	39.90	5.40	1,199.47	0.18	357,736.32	1,618,801.97	N 39°28'32.01"	W 80°44'19.96"
	2,404.00	0.70	171.43	2,401.57	-32.64	39.13	5.51	1,261.47	0.04	357,735.56	1,618,802.07	N 39°28'32.00"	W 80°44'19.96"
	2,468.00	0.56	171.67	2,465.56	-31.97	38.44	5.61	1,325.46	0.22	357,734.86	1,618,802.18	N 39°28'31.99"	W 80°44'19.96"
	2,560.00	0.64	152.66	2,557.56	-31.03	37.54	5.91	1,417.46	0.23	357,733.96	1,618,802.48	N 39°28'31.98"	W 80°44'19.96"
	2,653.00	0.73	133.11	2,650.55	-29.96	36.67	6.59	1,510.45	0.27	357,733.09	1,618,803.15	N 39°28'31.97"	W 80°44'19.95"
	2,745.00	0.44	83.00	2,742.55	-29.29	36.31	7.36	1,602.45	0.61	357,732.74	1,618,803.93	N 39°28'31.97"	W 80°44'19.94"
	2,838.00	1.90	3.25	2,835.53	-30.52	37.90	7.81	1,695.43	2.01	357,734.32	1,618,804.37	N 39°28'31.99"	W 80°44'19.93"
	2,930.00	1.80	352.89	2,927.48	-33.21	40.85	7.71	1,787.38	0.39	357,737.28	1,618,804.27	N 39°28'32.02"	W 80°44'19.93"

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3,022.00	1.70	345.47	3,019.44	-35.91	43.61	7.18	1,879.34	0.26	357,740.03	1,618,803.75	N 39°28'32.04"	W 80°44'19.94"
3,115.00	1.47	342.46	3,112.40	-38.44	46.08	6.48	1,972.30	0.26	357,742.50	1,618,803.04	N 39°28'32.07"	W 80°44'19.95"
3,207.00	1.29	335.78	3,204.38	-40.64	48.15	5.70	2,064.28	0.26	357,744.57	1,618,802.26	N 39°28'32.09"	W 80°44'19.96"
3,300.00	1.14	333.36	3,297.36	-42.61	49.93	4.85	2,157.26	0.17	357,746.35	1,618,801.42	N 39°28'32.11"	W 80°44'19.97"
3,392.00	0.97	323.74	3,389.34	-44.30	51.38	3.98	2,249.24	0.27	357,747.80	1,618,800.55	N 39°28'32.12"	W 80°44'19.98"
3,485.00	0.80	312.81	3,482.33	-45.68	52.45	3.04	2,342.23	0.26	357,748.87	1,618,799.60	N 39°28'32.13"	W 80°44'20.00"
3,577.00	0.63	295.56	3,574.32	-46.68	53.11	2.11	2,434.22	0.30	357,749.53	1,618,798.68	N 39°28'32.14"	W 80°44'20.01"
3,669.00	2.04	247.09	3,666.30	-47.17	52.69	0.15	2,526.20	1.84	357,749.11	1,618,798.71	N 39°28'32.13"	W 80°44'20.03"
3,762.00	4.24	244.51	3,759.15	-47.32	50.56	-4.48	2,619.05	2.37	357,746.99	1,618,792.08	N 39°28'32.11"	W 80°44'20.09"
3,854.00	6.08	246.58	3,850.78	-47.61	47.16	-12.02	2,710.68	2.01	357,743.59	1,618,784.54	N 39°28'32.08"	W 80°44'20.19"
3,947.00	7.72	249.76	3,943.10	-48.52	43.04	-22.40	2,803.00	1.81	357,739.47	1,618,774.16	N 39°28'32.03"	W 80°44'20.32"
4,039.00	8.93	251.85	4,034.13	-50.18	38.88	-34.99	2,894.03	1.36	357,735.11	1,618,761.58	N 39°28'31.99"	W 80°44'20.48"
4,132.00	10.15	251.14	4,125.84	-52.26	33.78	-49.60	2,985.74	1.32	357,730.21	1,618,746.97	N 39°28'31.94"	W 80°44'20.66"
4,224.00	11.71	248.63	4,216.17	-54.11	27.76	-65.97	3,076.07	1.77	357,724.19	1,618,730.60	N 39°28'31.88"	W 80°44'20.87"
4,317.00	13.52	244.79	4,306.92	-55.13	19.69	-84.59	3,166.82	2.14	357,716.12	1,618,711.98	N 39°28'31.79"	W 80°44'21.11"
4,409.00	15.09	244.35	4,396.07	-55.47	9.93	-105.12	3,255.97	1.71	357,706.35	1,618,691.45	N 39°28'31.70"	W 80°44'21.37"
4,502.00	16.19	247.52	4,485.62	-56.47	-0.27	-128.01	3,345.52	1.50	357,696.15	1,618,668.56	N 39°28'31.59"	W 80°44'21.66"
4,595.00	17.54	251.30	4,574.62	-59.18	-9.72	-153.27	3,434.52	1.87	357,686.70	1,618,643.30	N 39°28'31.49"	W 80°44'21.98"
4,687.00	18.82	256.24	4,662.04	-64.24	-17.70	-180.82	3,521.94	2.18	357,678.73	1,618,615.76	N 39°28'31.41"	W 80°44'22.33"
4,779.00	20.85	258.97	4,748.57	-71.77	-24.36	-211.31	3,608.47	2.42	357,672.07	1,618,585.27	N 39°28'31.34"	W 80°44'22.72"
4,873.00	24.04	258.73	4,835.44	-81.14	-31.31	-246.51	3,695.34	3.40	357,665.12	1,618,550.07	N 39°28'31.27"	W 80°44'23.16"
4,965.00	26.82	254.79	4,918.53	-89.99	-40.41	-284.93	3,778.43	3.54	357,656.01	1,618,511.65	N 39°28'31.17"	W 80°44'23.65"
5,057.00	26.64	249.63	5,000.71	-96.11	-53.04	-324.30	3,860.61	2.53	357,643.39	1,618,472.29	N 39°28'31.04"	W 80°44'24.15"
5,149.00	25.93	246.84	5,083.20	-99.34	-68.13	-362.13	3,943.10	1.55	357,628.30	1,618,434.46	N 39°28'30.89"	W 80°44'24.63"
5,242.00	26.59	246.89	5,166.60	-101.61	-84.30	-399.97	4,026.50	0.71	357,612.13	1,618,396.62	N 39°28'30.72"	W 80°44'25.11"
5,334.00	26.33	247.95	5,248.96	-104.27	-100.04	-437.81	4,108.86	0.59	357,596.39	1,618,358.78	N 39°28'30.56"	W 80°44'25.59"
5,426.00	25.91	250.74	5,331.57	-108.24	-114.33	-475.70	4,191.47	1.41	357,582.10	1,618,320.89	N 39°28'30.42"	W 80°44'26.07"
5,518.00	24.69	252.82	5,414.74	-113.75	-126.64	-513.04	4,274.64	1.64	357,569.80	1,618,283.56	N 39°28'30.29"	W 80°44'26.54"
5,610.00	24.78	254.25	5,498.30	-120.32	-137.55	-549.95	4,358.20	0.66	357,558.89	1,618,246.65	N 39°28'30.18"	W 80°44'27.01"
5,703.00	24.54	254.13	5,582.82	-127.38	-148.12	-587.28	4,442.72	0.26	357,548.32	1,618,209.32	N 39°28'30.07"	W 80°44'27.49"
5,795.00	24.56	254.01	5,666.51	-134.26	-158.61	-624.04	4,526.41	0.06	357,537.83	1,618,172.56	N 39°28'29.96"	W 80°44'27.95"
5,888.00	24.09	253.83	5,751.25	-141.06	-169.22	-660.85	4,611.15	0.51	357,527.22	1,618,135.75	N 39°28'29.85"	W 80°44'28.42"
5,980.00	23.53	251.44	5,835.42	-146.83	-180.29	-696.29	4,695.32	1.21	357,516.14	1,618,100.31	N 39°28'29.73"	W 80°44'28.87"
6,072.00	23.84	250.22	5,919.74	-151.39	-192.38	-731.06	4,779.84	0.54	357,504.06	1,618,065.55	N 39°28'29.61"	W 80°44'29.31"
6,165.00	22.93	248.98	6,005.16	-155.18	-205.19	-765.52	4,865.06	0.93	357,491.25	1,618,031.09	N 39°28'29.48"	W 80°44'29.75"
6,228.00	20.96	247.57	6,063.59	-157.07	-213.89	-787.39	4,923.49	3.24	357,482.55	1,618,009.22	N 39°28'29.39"	W 80°44'30.03"
6,321.00	24.42	250.85	6,148.39	-160.51	-226.61	-820.92	5,009.29	3.93	357,469.83	1,617,975.70	N 39°28'29.26"	W 80°44'30.45"
6,414.00	25.48	235.50	6,233.79	-159.98	-244.33	-855.58	5,093.69	6.95	357,452.11	1,617,941.04	N 39°28'29.08"	W 80°44'30.89"
6,506.00	24.03	215.99	6,317.48	-148.43	-270.74	-882.94	5,177.38	8.98	357,425.70	1,617,913.67	N 39°28'28.82"	W 80°44'31.24"
6,598.00	25.68	202.36	6,401.02	-126.53	-304.36	-901.55	5,260.92	6.47	357,392.08	1,617,885.07	N 39°28'28.46"	W 80°44'31.47"
6,690.00	30.36	195.44	6,482.24	-95.99	-345.24	-915.33	5,342.14	6.19	357,351.20	1,617,881.28	N 39°28'28.07"	W 80°44'31.64"
6,783.00	37.36	188.39	6,559.45	-55.18	-395.90	-925.73	5,419.35	8.62	357,300.55	1,617,870.89	N 39°28'27.57"	W 80°44'31.76"
6,875.00	41.83	179.91	6,630.37	-4.64	-454.26	-929.75	5,490.27	7.61	357,242.19	1,617,866.86	N 39°28'27.00"	W 80°44'31.80"
6,967.00	48.82	173.71	6,695.05	55.52	-519.47	-925.91	5,554.95	8.98	357,176.99	1,617,870.71	N 39°28'26.35"	W 80°44'31.74"
7,059.00	54.71	169.63	6,751.98	124.24	-590.89	-915.34	5,611.88	7.29	357,105.57	1,617,881.28	N 39°28'25.65"	W 80°44'31.59"
7,151.00	59.95	167.13	6,801.63	199.14	-666.71	-899.70	5,661.53	6.14	357,029.76	1,617,896.91	N 39°28'24.90"	W 80°44'31.38"
7,244.00	65.01	164.97	6,844.59	279.68	-746.71	-879.79	5,704.49	5.82	356,949.76	1,617,916.82	N 39°28'24.11"	W 80°44'31.11"
7,336.00	74.29	162.41	6,876.55	364.54	-829.38	-855.54	5,736.45	10.42	356,867.09	1,617,941.07	N 39°28'23.30"	W 80°44'30.79"
7,429.00	81.35	158.62	6,896.17	454.73	-915.00	-825.21	5,756.07	8.57	356,781.48	1,617,971.41	N 39°28'22.46"	W 80°44'30.39"
7,521.00	85.41	153.63	6,906.78	545.99	-998.51	-788.22	5,766.68	6.96	356,697.97	1,618,008.39	N 39°28'21.64"	W 80°44'29.90"
7,614.00	88.05	148.78	6,912.08	638.72	-1,079.85	-743.51	5,771.98	5.93	356,616.64	1,618,053.10	N 39°28'20.84"	W 80°44'29.32"
7,706.00	89.38	151.59	6,914.15	730.51	-1,159.64	-697.79	5,774.05	3.38	356,536.85	1,618,098.82	N 39°28'20.06"	W 80°44'28.72"
7,798.00	89.27	148.35	6,915.23	822.29	-1,239.27	-651.76	5,775.13	3.52	356,457.22	1,618,144.85	N 39°28'19.28"	W 80°44'28.12"
7,891.00	89.50	148.71	6,916.23	914.81	-1,318.59	-603.21	5,776.13	0.46	356,377.91	1,618,193.39	N 39°28'18.50"	W 80°44'27.46"
7,983.00	89.72	148.78	6,916.86	1,006.56	-1,397.23	-555.48	5,776.76	0.25	356,299.27	1,618,241.12	N 39°28'17.73"	W 80°44'26.86"
8,075.00	89.55	148.51	6,917.44	1,098.20	-1,475.80	-507.61	5,777.34	0.35	356,220.71	1,618,288.99	N 39°28'16.96"	W 80°44'26.24"
8,167.00	89.35	149.34	6,918.33	1,189.88	-1,554.59	-460.12	5,778.23	0.93	356,141.93	1,618,336.47	N 39°28'16.19"	W 80°44'25.62"
8,259.00	89.31	149.39	6,919.40	1,281.61	-1,633.74	-413.24	5,779.30	0.07	356,062.78	1,618,383.35	N 39°28'15.41"	W 80°44'25.01"
8,351.00	89.21	149.53	6,920.59	1,373.35	-1,712.97	-366.50	5,780.49	0.19	355,983.55	1,618,430.09	N 39°28'14.63"	W 80°44'24.40"
8,444.00	89.16	149.87	6,921.91	1,466.11	-1,793.26	-319.58	5,781.81	0.37	355,903.27	1,618,477.00	N 39°28'13.85"	W 80°44'23.78"
8,536.00	89.62	149.47	6,922.89	1,557.88	-1,872.67	-273.13	5,782.79	0.66	355,823.87	1,618,523.45	N 39°28'13.07"	W 80°44'23.18"
8,628.00	89.62	149.17	6,923.50	1,649.61	-1,951.79	-226.19	5,783.40	0.33	355,744.75	1,618,570.39	N 39°28'12.29"	W 80°44'22.57"
8,720.00	89.53	149.23	6,924.18	1,741.32	-2,030.81	-179.08	5,784.08	0.12	355,665.73	1,618,617.50	N 39°28'11.52"	W 80°44'21.95"
8,813.00	89.88	150.05	6,924.66	1,834.08	-2,111.05	-132.08	5,784.56	0.96	355,585.49	1,618,664.50	N 39°28'10.73"	W 80°44'21.34"
8,905.00	89.89	149.94	6,924.85	1,925.89	-2,190.72	-86.07	5,784.75	0.12	355,505.83	1,618,710.50	N 39°28'9.95"	W 80°44'20.74"

Last 3rd Party Survey
First SLB MWD Survey

8,998.00	89.63	149.04	6,925.24	2,018.64	-2,270.85	-38.85	5,785.14	1.01	355,425.71	1,618,757.71	N 39°28'9.17"	W 80°44'20.12"
9,090.00	89.83	149.52	6,925.67	2,110.36	-2,348.93	8.14	5,785.57	0.57	355,346.63	1,618,804.71	N 39°28'8.38"	W 80°44'19.51"
9,182.00	89.63	148.95	6,926.10	2,202.08	-2,428.99	55.20	5,786.00	0.66	355,267.58	1,618,851.76	N 39°28'7.62"	W 80°44'18.89"
9,274.00	89.57	148.37	6,926.75	2,293.72	-2,507.56	103.05	5,786.65	0.63	355,189.01	1,618,899.61	N 39°28'6.85"	W 80°44'18.27"
9,367.00	89.59	148.82	6,927.43	2,386.42	-2,587.35	150.81	5,787.33	1.56	355,109.22	1,618,947.37	N 39°28'6.06"	W 80°44'17.65"
9,459.00	89.59	150.01	6,928.09	2,478.21	-2,666.96	196.93	5,787.99	0.21	355,029.62	1,618,993.48	N 39°28'5.28"	W 80°44'17.05"
9,551.00	89.46	150.41	6,928.85	2,570.04	-2,746.80	242.64	5,788.75	0.46	354,949.79	1,619,039.19	N 39°28'4.50"	W 80°44'16.45"
9,643.00	89.49	150.54	6,929.69	2,661.89	-2,826.84	287.97	5,789.59	0.15	354,869.74	1,619,084.52	N 39°28'3.72"	W 80°44'15.86"
9,735.00	89.38	150.20	6,930.60	2,753.73	-2,906.81	333.46	5,790.50	0.39	354,789.78	1,619,130.00	N 39°28'2.93"	W 80°44'15.26"
9,827.00	89.41	150.97	6,931.57	2,845.59	-2,986.95	378.64	5,791.47	0.84	354,709.65	1,619,175.18	N 39°28'2.15"	W 80°44'14.67"
9,919.00	89.41	150.08	6,932.52	2,937.44	-3,067.03	423.90	5,792.42	0.97	354,629.57	1,619,220.44	N 39°28'1.36"	W 80°44'14.08"
10,011.00	89.53	149.81	6,933.37	3,029.24	-3,148.66	469.98	5,793.27	0.32	354,549.95	1,619,266.51	N 39°28'0.58"	W 80°44'13.48"
10,104.00	89.43	150.68	6,934.21	3,122.06	-3,227.39	516.13	5,794.11	0.94	354,469.22	1,619,312.66	N 39°27'59.79"	W 80°44'12.88"
10,196.00	89.47	150.45	6,935.10	3,213.92	-3,307.51	561.34	5,795.00	0.25	354,389.10	1,619,357.87	N 39°27'59.00"	W 80°44'12.29"
10,288.00	89.62	150.59	6,935.83	3,305.78	-3,387.60	606.61	5,795.73	0.22	354,309.02	1,619,403.14	N 39°27'58.22"	W 80°44'11.70"
10,381.00	89.62	150.43	6,936.44	3,398.63	-3,468.55	652.39	5,796.34	0.17	354,228.08	1,619,448.92	N 39°27'57.42"	W 80°44'11.10"
10,473.00	89.76	150.73	6,936.94	3,490.49	-3,548.68	697.58	5,796.84	0.36	354,147.95	1,619,494.11	N 39°27'56.64"	W 80°44'10.51"
10,565.00	89.85	149.93	6,937.26	3,582.33	-3,628.62	743.12	5,797.16	0.88	354,068.01	1,619,539.65	N 39°27'55.85"	W 80°44'9.91"
10,657.00	89.92	150.09	6,937.44	3,674.14	-3,708.30	789.11	5,797.34	0.19	353,988.34	1,619,585.63	N 39°27'55.07"	W 80°44'9.31"
10,749.00	89.66	149.69	6,937.78	3,765.93	-3,787.89	835.26	5,797.68	0.52	353,908.76	1,619,631.78	N 39°27'54.29"	W 80°44'8.71"
10,842.00	89.83	150.10	6,938.19	3,858.73	-3,868.34	881.91	5,798.09	0.48	353,828.31	1,619,678.42	N 39°27'53.50"	W 80°44'8.10"
10,934.00	90.10	150.85	6,938.25	3,950.58	-3,948.39	927.25	5,798.15	0.87	353,748.26	1,619,723.76	N 39°27'52.72"	W 80°44'7.51"
11,026.00	89.92	149.96	6,938.23	4,042.43	-4,028.39	972.68	5,798.13	0.99	353,668.27	1,619,769.19	N 39°27'51.93"	W 80°44'6.92"
11,118.00	89.87	150.03	6,938.40	4,134.23	-4,108.06	1,018.69	5,798.30	0.09	353,588.60	1,619,815.19	N 39°27'51.15"	W 80°44'6.32"
11,211.00	89.90	149.90	6,938.59	4,227.04	-4,188.57	1,065.24	5,798.49	0.14	353,508.09	1,619,861.74	N 39°27'50.36"	W 80°44'5.71"
11,303.00	90.01	150.79	6,938.66	4,318.88	-4,268.52	1,110.76	5,798.56	0.97	353,428.15	1,619,907.26	N 39°27'49.58"	W 80°44'5.11"
11,395.00	89.71	150.16	6,938.88	4,410.73	-4,348.57	1,156.09	5,798.78	0.76	353,348.10	1,619,952.59	N 39°27'48.80"	W 80°44'4.52"
11,487.00	90.08	150.61	6,939.05	4,502.58	-4,428.56	1,201.56	5,798.95	0.63	353,268.13	1,619,998.05	N 39°27'48.01"	W 80°44'3.93"
11,579.00	89.93	150.08	6,939.04	4,594.42	-4,508.50	1,247.08	5,798.94	0.60	353,188.18	1,620,043.57	N 39°27'47.23"	W 80°44'3.33"
11,672.00	89.95	150.91	6,939.14	4,687.27	-4,589.44	1,292.88	5,799.04	0.89	353,107.25	1,620,089.37	N 39°27'46.43"	W 80°44'2.74"
11,765.00	89.92	150.40	6,939.25	4,780.14	-4,670.51	1,338.45	5,799.15	0.55	353,026.19	1,620,134.94	N 39°27'45.64"	W 80°44'2.14"
11,857.00	89.96	150.01	6,939.34	4,871.97	-4,750.35	1,384.17	5,799.24	0.43	352,946.35	1,620,180.65	N 39°27'44.86"	W 80°44'1.54"
11,950.00	89.86	150.10	6,939.49	4,964.78	-4,830.93	1,430.59	5,799.39	0.14	352,865.77	1,620,227.07	N 39°27'44.07"	W 80°44'0.94"
12,042.00	89.85	150.20	6,939.72	5,056.60	-4,910.73	1,476.38	5,799.62	0.11	352,785.98	1,620,272.86	N 39°27'43.28"	W 80°44'0.34"
12,135.00	89.79	149.75	6,940.01	5,149.40	-4,991.25	1,522.92	5,799.91	0.49	352,705.47	1,620,319.39	N 39°27'42.49"	W 80°43'59.73"
12,227.00	89.72	150.30	6,940.41	5,241.21	-5,070.94	1,568.88	5,800.31	0.60	352,625.78	1,620,365.36	N 39°27'41.71"	W 80°43'59.13"
12,320.00	89.67	150.29	6,940.90	5,334.05	-5,151.72	1,614.97	5,800.80	0.05	352,545.01	1,620,411.44	N 39°27'40.92"	W 80°43'58.53"
12,412.00	89.42	149.71	6,941.63	5,425.85	-5,231.39	1,660.96	5,801.53	0.69	352,465.34	1,620,457.43	N 39°27'40.14"	W 80°43'57.93"
12,505.00	89.45	150.35	6,942.55	5,518.65	-5,311.95	1,707.42	5,802.45	0.69	352,384.78	1,620,503.89	N 39°27'39.35"	W 80°43'57.32"
12,598.00	89.45	150.08	6,943.44	5,611.48	-5,392.66	1,753.61	5,803.34	0.29	352,304.08	1,620,550.08	N 39°27'38.56"	W 80°43'56.72"
12,690.00	89.97	149.72	6,944.71	5,703.27	-5,472.25	1,799.75	5,804.61	0.65	352,224.50	1,620,596.21	N 39°27'37.78"	W 80°43'56.12"
12,783.00	88.84	149.42	6,946.49	5,796.01	-5,552.42	1,846.84	5,806.39	0.35	352,144.33	1,620,643.30	N 39°27'36.99"	W 80°43'55.50"
12,876.00	88.99	150.23	6,948.25	5,888.78	-5,632.80	1,893.58	5,808.15	0.89	352,063.95	1,620,690.04	N 39°27'36.20"	W 80°43'54.89"
12,969.00	89.53	150.13	6,949.45	5,981.59	-5,713.48	1,939.82	5,809.35	0.59	351,983.27	1,620,736.28	N 39°27'35.41"	W 80°43'54.29"
13,061.00	89.28	149.49	6,950.41	6,073.37	-5,793.00	1,986.08	5,810.31	0.75	351,903.76	1,620,782.53	N 39°27'34.63"	W 80°43'53.69"
13,154.00	89.58	149.87	6,951.33	6,166.14	-5,873.27	2,033.03	5,811.23	0.52	351,823.49	1,620,829.48	N 39°27'33.85"	W 80°43'53.07"
13,246.00	89.44	149.53	6,952.12	6,257.91	-5,952.70	2,079.45	5,812.02	0.40	351,744.07	1,620,875.89	N 39°27'33.07"	W 80°43'52.47"
13,339.00	89.75	149.85	6,952.78	6,350.68	-6,032.99	2,126.38	5,812.68	0.48	351,663.79	1,620,922.82	N 39°27'32.28"	W 80°43'51.86"
13,431.00	90.07	149.49	6,952.92	6,442.45	-6,112.40	2,172.84	5,812.82	0.52	351,584.38	1,620,969.28	N 39°27'31.50"	W 80°43'51.26"
13,524.00	89.55	149.58	6,953.23	6,535.21	-6,192.56	2,219.89	5,813.13	0.57	351,504.23	1,621,016.43	N 39°27'30.72"	W 80°43'50.64"
13,616.00	89.45	149.00	6,954.03	6,626.93	-6,271.85	2,266.97	5,813.93	0.64	351,425.14	1,621,063.41	N 39°27'29.94"	W 80°43'50.02"
13,709.00	89.50	150.24	6,954.88	6,719.69	-6,351.88	2,314.00	5,814.78	1.33	351,344.92	1,621,110.43	N 39°27'29.15"	W 80°43'49.41"
13,801.00	90.09	149.67	6,955.21	6,811.49	-6,431.51	2,360.06	5,815.11	0.89	351,265.28	1,621,156.49	N 39°27'28.37"	W 80°43'48.81"
13,894.00	90.69	150.35	6,954.58	6,904.29	-6,512.06	2,406.55	5,814.48	0.98	351,184.74	1,621,202.97	N 39°27'27.58"	W 80°43'48.20"
13,986.00	89.48	149.28	6,954.44	6,996.08	-6,591.58	2,452.80	5,814.34	1.76	351,105.23	1,621,249.23	N 39°27'26.80"	W 80°43'47.60"
14,079.00	89.52	149.49	6,955.25	7,088.81	-6,671.61	2,500.16	5,815.15	0.23	351,025.20	1,621,296.58	N 39°27'26.02"	W 80°43'46.98"
14,171.00	89.60	149.29	6,955.96	7,180.55	-6,750.79	2,547.01	5,815.86	0.23	350,946.02	1,621,343.43	N 39°27'25.24"	W 80°43'46.37"
14,264.00	89.52	149.79	6,956.68	7,273.30	-6,830.95	2,594.15	5,816.58	0.54	350,865.87	1,621,390.57	N 39°27'24.46"	W 80°43'45.75"
14,356.00	89.46	149.66	6,957.49	7,365.07	-6,910.40	2,640.53	5,817.39	0.16	350,786.42	1,621,436.94	N 39°27'23.68"	W 80°43'45.15"
14,448.00	89.82	149.83	6,958.07	7,456.85	-6,989.87	2,686.88	5,817.97	0.43	350,706.96	1,621,483.29	N 39°27'22.90"	W 80°43'44.54"
14,541.00	89.81	150.19	6,958.54	7,549.66	-7,070.42	2,733.37	5,818.44	0.45	350,626.42	1,621,529.78	N 39°27'22.11"	W 80°43'43.94"
14,633.00	89.32	150.53	6,959.39	7,641.50	-7,150.38	2,778.87	5,819.29	0.49	350,546.46	1,621,575.27	N 39°27'21.33"	W 80°43'43.34"
14,726.00	89.37	150.61	6,960.46	7,734.35	-7,231.37	2,824.56	5,820.36	0.10	350,465.47	1,621,620.96	N 39°27'20.53"	W 80°43'42.75"
14,818.00	89.48	150.36	6,961.38	7,826.20	-7,311.43	2,869.88	5,821.28	0.30	350,385.42	1,621,666.28	N 39°27'19.75"	W 80°43'42.16"
14,911.00	89.98	150.20	6,961.82	7,919.03	-7,392.19	2,915.99	5,821.72	0.56	350,304.66	1,621,712.38	N 39°27'18.96"	W 80°43'41.55"

15,003.00	89.55	150.30	6,962.20	8,010.87	-7,472.07	2,961.64	5,822.10	0.48	350,224.79	1,621,758.03	N 39°27'18.17"	W 80°43'40.96"
15,096.00	89.50	150.30	6,962.97	8,103.70	-7,552.85	3,007.71	5,822.87	0.05	350,144.02	1,621,804.10	N 39°27'17.38"	W 80°43'40.36"
15,188.00	89.55	150.30	6,963.73	8,195.53	-7,632.76	3,053.29	5,823.63	0.05	350,064.11	1,621,849.88	N 39°27'16.60"	W 80°43'39.76"
15,281.00	89.59	150.77	6,964.43	8,288.39	-7,713.73	3,099.04	5,824.33	0.51	349,983.15	1,621,895.42	N 39°27'15.80"	W 80°43'39.16"
15,373.00	89.49	149.87	6,965.17	8,380.22	-7,793.65	3,144.59	5,825.07	0.98	349,903.22	1,621,940.97	N 39°27'15.02"	W 80°43'38.57"
15,466.00	89.95	149.93	6,965.62	8,473.02	-7,874.11	3,191.23	5,825.52	0.50	349,822.77	1,621,987.61	N 39°27'14.23"	W 80°43'37.96"
15,558.00	89.78	150.09	6,965.85	8,564.83	-7,953.79	3,237.22	5,825.75	0.27	349,743.09	1,622,033.59	N 39°27'13.45"	W 80°43'37.36"
15,650.00	89.82	150.52	6,966.19	8,656.66	-8,033.71	3,282.79	5,826.09	0.47	349,663.18	1,622,079.17	N 39°27'12.67"	W 80°43'36.77"
15,743.00	90.14	149.56	6,966.22	8,749.47	-8,114.28	3,329.23	5,826.12	1.09	349,582.61	1,622,125.61	N 39°27'11.88"	W 80°43'36.16"
15,835.00	89.41	149.32	6,966.58	8,841.22	-8,193.50	3,376.01	5,826.48	0.84	349,503.40	1,622,172.38	N 39°27'11.10"	W 80°43'35.55"
15,928.00	90.09	151.43	6,966.99	8,934.05	-8,274.34	3,421.98	5,826.89	2.38	349,422.57	1,622,218.35	N 39°27'10.31"	W 80°43'34.95"
16,020.00	89.72	149.85	6,967.14	9,025.92	-8,354.52	3,467.08	5,827.04	1.76	349,342.39	1,622,263.45	N 39°27'9.52"	W 80°43'34.36"
16,112.00	89.58	150.04	6,967.71	9,117.72	-8,434.15	3,513.16	5,827.61	0.26	349,262.77	1,622,309.52	N 39°27'8.74"	W 80°43'33.76"
16,205.00	89.62	150.81	6,968.35	9,210.56	-8,515.03	3,559.06	5,828.25	0.83	349,181.89	1,622,355.42	N 39°27'7.95"	W 80°43'33.16"
16,297.00	89.61	150.89	6,968.97	9,302.45	-8,595.37	3,603.87	5,828.87	0.09	349,101.55	1,622,400.23	N 39°27'7.16"	W 80°43'32.58"
16,390.00	89.41	150.32	6,969.77	9,395.31	-8,676.40	3,649.52	5,829.67	0.65	349,020.53	1,622,445.87	N 39°27'6.36"	W 80°43'31.98"
16,482.00	89.36	150.88	6,970.76	9,487.17	-8,756.54	3,694.68	5,830.66	0.61	348,940.39	1,622,491.03	N 39°27'5.58"	W 80°43'31.39"
16,574.00	89.36	150.31	6,971.78	9,579.02	-8,836.69	3,739.84	5,831.68	0.62	348,860.25	1,622,536.19	N 39°27'4.79"	W 80°43'30.80"
16,666.00	89.32	150.49	6,972.84	9,670.87	-8,916.67	3,785.28	5,832.74	0.20	348,780.27	1,622,581.63	N 39°27'4.01"	W 80°43'30.21"
16,759.00	89.21	150.25	6,974.04	9,763.70	-8,997.51	3,831.26	5,833.94	0.28	348,699.44	1,622,627.60	N 39°27'3.21"	W 80°43'29.61"
16,852.00	89.88	151.32	6,974.77	9,856.58	-9,078.67	3,876.65	5,834.67	1.36	348,618.28	1,622,672.99	N 39°27'2.42"	W 80°43'29.01"
16,944.00	89.02	150.25	6,975.66	9,948.45	-9,158.96	3,921.55	5,835.56	1.49	348,537.99	1,622,717.89	N 39°27'1.63"	W 80°43'28.43"
17,037.00	88.87	149.89	6,977.37	10,041.25	-9,239.55	3,967.94	5,837.27	0.42	348,457.41	1,622,764.28	N 39°27'0.84"	W 80°43'27.82"
17,129.00	88.75	150.13	6,979.28	10,133.04	-9,319.21	4,013.92	5,839.18	0.29	348,377.75	1,622,810.25	N 39°27'0.06"	W 80°43'27.22"
17,222.00	89.05	150.31	6,981.07	10,225.85	-9,399.92	4,060.10	5,840.97	0.38	348,297.05	1,622,856.43	N 39°26'59.27"	W 80°43'26.62"
17,314.00	88.92	150.16	6,982.70	10,317.66	-9,479.77	4,105.77	5,842.60	0.22	348,217.21	1,622,902.09	N 39°26'58.49"	W 80°43'26.02"
17,407.00	88.82	150.27	6,984.53	10,410.47	-9,560.46	4,151.96	5,844.43	0.16	348,136.51	1,622,948.28	N 39°26'57.69"	W 80°43'25.42"
17,499.00	89.84	150.85	6,985.61	10,502.33	-9,640.58	4,197.17	5,845.51	1.28	348,056.41	1,622,993.49	N 39°26'56.91"	W 80°43'24.83"
17,592.00	88.89	150.18	6,986.64	10,595.18	-9,721.53	4,242.94	5,846.54	1.25	347,975.46	1,623,039.26	N 39°26'56.12"	W 80°43'24.23"
17,684.00	88.55	149.99	6,988.69	10,686.97	-9,801.25	4,288.81	5,848.59	0.42	347,895.74	1,623,085.13	N 39°26'55.33"	W 80°43'23.63"
17,777.00	89.02	149.43	6,990.66	10,779.72	-9,881.53	4,335.71	5,850.56	0.79	347,815.46	1,623,132.02	N 39°26'54.55"	W 80°43'23.02"
17,869.00	89.11	150.23	6,992.16	10,871.50	-9,961.06	4,381.94	5,852.06	0.87	347,735.94	1,623,178.25	N 39°26'53.77"	W 80°43'22.42"
17,961.00	89.02	150.13	6,993.67	10,963.31	-10,040.87	4,427.68	5,853.57	0.15	347,656.14	1,623,223.99	N 39°26'52.98"	W 80°43'21.82"
18,054.00	89.25	149.85	6,995.07	11,056.11	-10,121.39	4,474.19	5,854.97	0.39	347,575.82	1,623,270.50	N 39°26'52.19"	W 80°43'21.22"
18,146.00	89.28	150.19	6,996.25	11,147.91	-10,201.07	4,520.16	5,856.15	0.37	347,495.94	1,623,316.46	N 39°26'51.41"	W 80°43'20.62"
18,239.00	89.22	150.15	6,997.47	11,240.72	-10,281.75	4,566.41	5,857.37	0.08	347,415.27	1,623,362.72	N 39°26'50.62"	W 80°43'20.01"
18,331.00	89.28	149.97	6,998.67	11,332.53	-10,361.46	4,612.33	5,858.57	0.21	347,335.56	1,623,408.63	N 39°26'49.84"	W 80°43'19.41"
18,424.00	89.38	150.17	6,999.76	11,425.34	-10,442.05	4,658.73	5,859.66	0.24	347,254.98	1,623,455.02	N 39°26'49.05"	W 80°43'18.81"
18,516.00	89.25	149.61	7,000.86	11,517.13	-10,521.63	4,704.87	5,860.76	0.62	347,175.40	1,623,501.17	N 39°26'48.27"	W 80°43'18.21"
18,608.00	89.25	149.62	7,002.08	11,609.88	-10,601.85	4,751.91	5,861.98	0.01	347,095.19	1,623,548.20	N 39°26'47.48"	W 80°43'17.59"
18,701.00	89.24	148.62	7,003.29	11,701.58	-10,680.80	4,799.12	5,863.19	1.09	347,016.24	1,623,595.41	N 39°26'46.71"	W 80°43'16.98"
18,793.00	89.02	147.99	7,004.69	11,793.16	-10,759.07	4,847.45	5,864.59	0.73	346,937.98	1,623,643.74	N 39°26'45.94"	W 80°43'16.35"
18,886.00	89.16	148.70	7,006.16	11,885.74	-10,838.22	4,896.26	5,866.06	0.78	346,858.83	1,623,692.54	N 39°26'45.17"	W 80°43'15.71"
18,978.00	89.62	150.40	7,007.15	11,978.49	-10,918.39	4,943.38	5,867.05	1.89	346,778.67	1,623,739.66	N 39°26'44.38"	W 80°43'15.10"
19,071.00	89.01	149.36	7,008.25	12,070.27	-10,997.96	4,989.54	5,868.15	1.31	346,699.10	1,623,785.82	N 39°26'43.60"	W 80°43'14.50"
19,164.00	89.55	149.64	7,009.42	12,163.02	-11,078.09	5,036.74	5,869.32	0.65	346,618.98	1,623,833.02	N 39°26'42.82"	W 80°43'13.88"
19,256.00	89.36	150.14	7,010.30	12,254.81	-11,157.67	5,082.89	5,870.20	0.58	346,539.40	1,623,879.16	N 39°26'42.04"	W 80°43'13.28"
19,348.00	89.31	150.38	7,011.38	12,347.63	-11,238.41	5,129.02	5,871.28	0.26	346,458.66	1,623,925.29	N 39°26'41.24"	W 80°43'12.68"
19,441.00	89.35	150.31	7,012.45	12,439.47	-11,318.36	5,174.54	5,872.35	0.09	346,378.72	1,623,970.81	N 39°26'40.46"	W 80°43'12.08"
19,534.00	89.45	149.48	7,013.43	12,532.26	-11,398.81	5,221.18	5,873.33	0.90	346,298.28	1,624,017.45	N 39°26'39.67"	W 80°43'11.47"
19,627.00	89.77	149.99	7,014.06	12,625.03	-11,479.13	5,268.05	5,873.96	0.65	346,217.96	1,624,064.32	N 39°26'38.88"	W 80°43'10.86"
19,719.00	89.97	150.11	7,014.27	12,716.84	-11,558.84	5,313.98	5,874.17	0.25	346,138.25	1,624,110.24	N 39°26'38.10"	W 80°43'10.26"
19,811.00	90.02	150.95	7,014.27	12,808.70	-11,638.94	5,359.25	5,874.17	0.91	346,058.16	1,624,155.50	N 39°26'37.32"	W 80°43'9.67"
19,904.00	89.95	150.77	7,014.30	12,901.59	-11,720.17	5,404.53	5,874.20	0.21	345,978.94	1,624,200.78	N 39°26'36.52"	W 80°43'9.08"
19,996.00	89.94	150.44	7,014.39	12,993.45	-11,800.32	5,449.69	5,874.29	0.36	345,898.78	1,624,245.94	N 39°26'35.73"	W 80°43'8.49"
20,088.00	89.85	150.41	7,014.56	13,086.30	-11,881.21	5,495.59	5,874.46	0.10	345,815.91	1,624,291.84	N 39°26'34.94"	W 80°43'7.89"
20,181.00	89.44	149.98	7,015.13	13,178.13	-11,961.04	5,541.32	5,875.03	0.65	345,736.08	1,624,337.56	N 39°26'34.16"	W 80°43'7.30"
20,274.00	89.72	150.57	7,015.81	13,270.96	-12,041.80	5,587.43	5,875.71	0.70	345,655.33	1,624,383.67	N 39°26'33.37"	W 80°43'6.69"
20,367.00	89.67	150.60	7,016.30	13,363.82	-12,122.80	5,633.10	5,876.20	0.06	345,574.32	1,624,429.34	N 39°26'32.57"	W 80°43'6.10"
20,459.00	89.82	150.74	7,016.71	13,455.69	-12,203.01	5,678.17	5,876.81	0.22	345,494.12	1,624,474.40	N 39°26'31.79"	W 80°43'5.51"
20,552.00	89.62	150.02	7,017.17	13,548.53	-12,283.86	5,724.13	5,877.07	0.80	345,413.28	1,624,520.37	N 39°26'30.99"	W 80°43'4.91"
20,644.00	89.90	150.03	7,017.55	13,640.34	-12,363.55	5,770.10	5,877.45	0.30	345,333.59	1,624,566.33	N 39°26'30.21"	W 80°43'4.31"
20,736.00	90.46	150.26	7,017.27	13,732.16	-12,443.34	5,815.89	5,877.17	0.66	345,253.81	1,624,612.12	N 39°26'29.43"	W 80°43'3.71"
20,829.00	90.98	151.46	7,016.10	13,825.04	-12,524.56	5,861.17	5,876.00	1.41	345,172.59	1,624,657.40	N 39°26'28.63"	W 80°43'3.12"
20,922.00	90.34	151.07	7,015.03	13,917.95	-12,606.11	5,905.88	5,874.93	0.81	345,091.05	1,624,702.10	N 39°26'27.83"	W 80°43'2.54"

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WV Department of
Environmental Protection

	21,014.00	89.88	151.01	7,014.85	14,009.85	-12,686.60	5,950.42	5,874.75	0.50	345,010.56	1,624,746.84	N 39°26'27.04"	W 80°43'1.96"	
	21,107.00	89.45	151.35	7,015.39	14,102.75	-12,768.08	5,995.25	5,875.29	0.59	344,929.08	1,624,791.47	N 39°26'26.24"	W 80°43'1.37"	
	21,199.00	89.42	150.15	7,016.30	14,194.63	-12,848.34	6,040.20	5,876.20	1.30	344,848.82	1,624,836.42	N 39°26'25.46"	W 80°43'0.78"	
	21,292.00	89.33	149.98	7,017.31	14,287.43	-12,928.93	6,086.61	5,877.21	0.21	344,768.24	1,624,882.82	N 39°26'24.67"	W 80°43'0.18"	
	21,384.00	89.27	150.08	7,018.44	14,379.24	-13,008.63	6,132.56	5,878.34	0.13	344,688.55	1,624,928.77	N 39°26'23.88"	W 80°42'59.58"	
	21,476.00	89.18	150.16	7,019.69	14,471.05	-13,088.39	6,178.39	5,879.59	0.13	344,608.79	1,624,974.59	N 39°26'23.10"	W 80°42'58.98"	
	21,569.00	89.38	149.92	7,020.86	14,563.85	-13,168.96	6,224.83	5,880.76	0.34	344,528.23	1,625,021.03	N 39°26'22.31"	W 80°42'58.38"	
	21,661.00	89.09	150.18	7,022.08	14,655.66	-13,248.66	6,270.75	5,881.98	0.42	344,448.53	1,625,066.96	N 39°26'21.53"	W 80°42'57.78"	
	21,753.00	89.23	149.85	7,023.43	14,747.45	-13,328.34	6,316.73	5,883.33	0.39	344,368.85	1,625,112.93	N 39°26'20.75"	W 80°42'57.18"	
	21,846.00	89.12	150.40	7,024.78	14,840.26	-13,408.98	6,363.05	5,884.68	0.60	344,288.23	1,625,159.24	N 39°26'19.96"	W 80°42'56.57"	
	21,938.00	88.54	150.20	7,026.66	14,932.08	-13,488.87	6,408.62	5,886.56	0.67	344,208.34	1,625,204.82	N 39°26'19.18"	W 80°42'55.98"	
	22,031.00	89.25	149.91	7,028.45	15,024.87	-13,569.44	6,455.04	5,888.35	0.83	344,127.77	1,625,251.23	N 39°26'18.39"	W 80°42'55.37"	
	22,123.00	89.06	149.86	7,029.80	15,116.66	-13,649.01	6,501.20	5,889.70	0.22	344,048.20	1,625,297.39	N 39°26'17.61"	W 80°42'54.77"	
	22,215.00	89.32	150.33	7,031.10	15,208.47	-13,728.75	6,547.06	5,891.00	0.58	343,968.47	1,625,343.25	N 39°26'16.82"	W 80°42'54.17"	
	22,308.00	89.29	149.88	7,032.23	15,301.28	-13,809.37	6,593.41	5,892.13	0.48	343,887.85	1,625,389.60	N 39°26'16.03"	W 80°42'53.57"	
	22,400.00	89.20	149.53	7,033.44	15,393.05	-13,888.80	6,639.82	5,893.34	0.40	343,808.43	1,625,436.00	N 39°26'15.25"	W 80°42'52.96"	
	22,493.00	89.46	150.10	7,034.52	15,485.82	-13,969.18	6,686.57	5,894.42	0.67	343,728.05	1,625,482.75	N 39°26'14.47"	W 80°42'52.35"	
	22,585.00	89.40	149.95	7,035.44	15,577.63	-14,048.87	6,732.54	5,895.34	0.18	343,648.37	1,625,528.72	N 39°26'13.68"	W 80°42'51.75"	
	22,678.00	89.45	150.06	7,036.37	15,670.43	-14,129.41	6,779.04	5,896.27	0.13	343,567.83	1,625,575.21	N 39°26'12.90"	W 80°42'51.15"	
	22,770.00	89.48	149.85	7,037.23	15,762.23	-14,209.04	6,825.10	5,897.13	0.23	343,488.21	1,625,621.27	N 39°26'12.11"	W 80°42'50.55"	
	22,863.00	89.52	149.88	7,038.04	15,855.02	-14,289.47	6,871.79	5,897.94	0.06	343,407.78	1,625,667.96	N 39°26'11.33"	W 80°42'49.94"	
	22,955.00	89.86	150.21	7,038.54	15,946.83	-14,369.18	6,917.72	5,898.44	0.52	343,328.08	1,625,713.89	N 39°26'10.54"	W 80°42'49.34"	
	23,048.00	90.06	150.08	7,038.61	16,039.65	-14,449.84	6,964.02	5,898.51	0.26	343,247.42	1,625,760.18	N 39°26'9.75"	W 80°42'48.73"	
	23,140.00	89.93	150.36	7,038.61	16,131.48	-14,529.69	7,009.71	5,898.51	0.34	343,167.58	1,625,805.87	N 39°26'8.97"	W 80°42'48.14"	
	23,233.00	89.92	150.14	7,038.73	16,224.31	-14,610.43	7,055.87	5,898.63	0.24	343,086.84	1,625,852.02	N 39°26'8.18"	W 80°42'47.54"	
	23,325.00	89.95	149.79	7,038.84	16,316.11	-14,690.07	7,101.91	5,898.74	0.37	343,007.20	1,625,898.07	N 39°26'7.40"	W 80°42'46.94"	
	23,418.00	89.88	149.89	7,038.97	16,408.90	-14,770.49	7,148.63	5,898.87	0.13	342,926.79	1,625,944.79	N 39°26'6.61"	W 80°42'46.33"	
	23,510.00	89.78	149.95	7,039.24	16,500.70	-14,850.10	7,194.74	5,899.14	0.13	342,847.19	1,625,990.89	N 39°26'5.83"	W 80°42'45.73"	
	23,603.00	89.88	149.86	7,039.52	16,593.50	-14,930.56	7,241.37	5,899.42	0.16	342,766.73	1,626,037.52	N 39°26'5.04"	W 80°42'45.12"	
	23,695.00	90.00	149.57	7,039.61	16,685.27	-15,010.01	7,287.77	5,899.51	0.34	342,687.29	1,626,083.91	N 39°26'4.26"	W 80°42'44.51"	
	23,788.00	90.05	150.15	7,039.57	16,778.06	-15,090.43	7,334.46	5,899.47	0.62	342,606.87	1,626,130.61	N 39°26'3.47"	W 80°42'43.90"	
	23,880.00	90.02	149.79	7,039.53	16,869.87	-15,170.08	7,380.51	5,899.43	0.39	342,527.22	1,626,176.64	N 39°26'2.69"	W 80°42'43.30"	
	23,973.00	90.11	149.90	7,039.42	16,962.66	-15,250.50	7,427.22	5,899.32	0.15	342,446.81	1,626,223.36	N 39°26'1.90"	W 80°42'42.69"	
	24,065.00	90.05	149.71	7,039.29	17,054.45	-15,330.01	7,473.49	5,899.19	0.22	342,367.30	1,626,269.63	N 39°26'1.12"	W 80°42'42.09"	
	24,158.00	90.00	149.59	7,039.25	17,147.21	-15,410.27	7,520.49	5,899.15	0.14	342,287.05	1,626,316.62	N 39°26'0.34"	W 80°42'41.48"	
	24,250.00	90.10	149.85	7,039.17	17,238.99	-15,489.71	7,566.88	5,899.07	0.31	342,207.61	1,626,363.01	N 39°25'59.56"	W 80°42'40.87"	
	24,342.00	90.04	149.73	7,039.06	17,330.77	-15,569.22	7,613.17	5,898.96	0.15	342,128.11	1,626,409.30	N 39°25'58.78"	W 80°42'40.27"	
	24,435.00	90.12	150.14	7,038.93	17,423.57	-15,649.70	7,659.77	5,898.83	0.46	342,047.63	1,626,455.89	N 39°25'57.99"	W 80°42'39.66"	
	24,527.00	90.13	149.82	7,038.72	17,515.38	-15,729.36	7,705.80	5,898.62	0.35	341,967.97	1,626,501.92	N 39°25'57.21"	W 80°42'39.06"	
	24,620.00	90.03	149.85	7,038.59	17,608.17	-15,809.76	7,752.53	5,898.49	0.11	341,887.57	1,626,548.65	N 39°25'56.42"	W 80°42'38.45"	
	24,805.00	90.17	149.64	7,038.27	17,792.72	-15,969.56	7,845.75	5,898.17	0.13	341,727.79	1,626,641.86	N 39°25'54.85"	W 80°42'37.24"	
	24,897.00	90.02	149.35	7,038.11	17,884.48	-16,048.83	7,892.45	5,898.01	0.35	341,648.52	1,626,688.56	N 39°25'54.08"	W 80°42'36.63"	
	25,082.00	90.02	149.44	7,038.05	18,068.95	-16,208.06	7,986.63	5,897.95	0.05	341,489.31	1,626,782.74	N 39°25'52.51"	W 80°42'35.40"	
	25,174.00	89.98	149.35	7,038.05	18,160.69	-16,287.24	8,033.47	5,897.95	0.11	341,410.13	1,626,829.57	N 39°25'51.74"	W 80°42'34.79"	
	25,266.00	90.16	150.77	7,037.94	18,252.50	-16,366.96	8,079.39	5,897.84	1.56	341,330.41	1,626,875.49	N 39°25'50.96"	W 80°42'34.19"	
	25,359.00	90.09	150.91	7,037.73	18,345.39	-16,448.18	8,124.70	5,897.63	0.17	341,249.20	1,626,920.80	N 39°25'50.16"	W 80°42'33.60"	
	25,451.00	90.14	150.96	7,037.55	18,437.28	-16,528.59	8,169.40	5,897.45	0.08	341,168.79	1,626,965.49	N 39°25'49.37"	W 80°42'33.02"	
	25,544.00	90.10	150.72	7,037.35	18,530.16	-16,609.80	8,214.71	5,897.25	0.26	341,087.58	1,627,010.80	N 39°25'48.57"	W 80°42'32.43"	
Last SLB MWD Survey														
Projection to TD	25,591.00	90.10	150.72	7,037.27	18,577.10	-16,650.80	8,237.70	5,897.17	0.00	341,046.69	1,627,033.79	N 39°25'48.17"	W 80°42'32.13"	Project to Bit

Survey Type: DefinitiveSurvey

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Expected Max Inclination (deg)	Survey Tool Code	Vendor / Tool	Borehole / Survey
	1	0.000	411.700	Act Stns		A020Ga_GYRO-NS		Sleepy 1B / Sleepy 1B Gyro+MWD 0ft-25591ft