

**APRIL 1 2023**  
**SURVEY REPORT**

**COP**  
**WELL: UL 20 PADDLE TAIL B #503H**  
**RIG: NABORS X04**

# SURVEY REPORT

UL 20 PADDLE TAIL B #503H

KEEPER GYRO SURVEY

PAGE 1 OF 15

CUSTOMER  
PROJECT  
FIELD

COP  
UL 20 Paddle Tail B #503H  
Phantom (Wolfcamp)

SDI JOB NO.  
SDI DISTRICT  
SDI KIT/UNIT

OP.039041  
Midland

## SITE INFORMATION

Site Name  
Lat/Long  
Northing  
Easting

UL 20 Paddle Tail B  
31.740167 N, 103.36005 W  
766,924.9 ft  
1,059,161.43 ft

Section  
Township  
Range

## MAP INFORMATION

North Reference  
Grid Correction  
System  
Datum  
Map Zone

Grid North  
1.56 deg  
US State Plane 1927  
North American Datum 1927 (Clarke 1866)  
Texas Central: 4203

## WELL INFORMATION

Lat/Long  
Northing  
Easting  
UWI

31.740167 N, 103.36005 W  
766,924.9 ft  
1,059,161.43 ft  
42-304-36079

## DEPTH AND ELEVATION REFERENCE

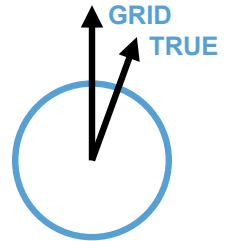
Ground Level  
Reference Datum  
Reference Height  
Reference Elevation

2832 ft above Mean Sea Level  
RKB  
32 ft above G.L.  
2864 ft

## VERTICAL SECTION REFERENCE

+N/-S  
+E/-W  
Proposal Direction  
Calculation Method

0 ft  
0 ft  
162.24°  
Minimum Curvature



## LOCAL GRAVITY REFERENCE INFORMATION

Local Gravity  
True to Grid

998.514 mG [computed]  
add 1.56°

## WELL NOTES

Keeper Gyro Survey

## OPERATORS

RAY FRANCO

SDI Operator Name (Printed) SIGNATURE DATE

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.19	46.04	100.00	-0.07	0.12	0.12	0.19	0.17	46.04
125.00	0.17	42.12	125.00	-0.11	0.17	0.17	0.11	0.24	45.46
150.00	0.22	69.21	150.00	-0.13	0.21	0.24	0.42	0.32	48.52
175.00	0.24	69.91	175.00	-0.14	0.25	0.34	0.07	0.42	53.44
200.00	0.27	29.94	200.00	-0.18	0.32	0.41	0.70	0.52	52.52
225.00	0.27	28.35	225.00	-0.26	0.42	0.47	0.04	0.63	48.27
250.00	0.07	45.45	250.00	-0.31	0.48	0.51	0.83	0.70	46.55
275.00	0.21	60.55	275.00	-0.32	0.52	0.56	0.56	0.76	47.34
300.00	0.17	126.89	300.00	-0.30	0.52	0.63	0.83	0.82	50.60
325.00	0.23	75.32	325.00	-0.27	0.51	0.71	0.74	0.87	54.34
350.00	0.28	46.15	350.00	-0.29	0.56	0.80	0.54	0.98	54.91
375.00	0.17	17.97	375.00	-0.35	0.64	0.86	0.61	1.07	53.25
400.00	0.06	256.98	400.00	-0.38	0.67	0.86	0.80	1.09	51.89
425.00	0.08	92.29	425.00	-0.37	0.67	0.86	0.52	1.09	52.17
450.00	0.10	326.03	450.00	-0.39	0.69	0.87	0.62	1.10	51.62
475.00	0.13	265.22	475.00	-0.42	0.70	0.83	0.47	1.08	49.69
500.00	0.27	224.87	500.00	-0.39	0.66	0.76	0.75	1.00	49.05
525.00	0.39	261.45	525.00	-0.38	0.60	0.63	0.94	0.87	46.36
550.00	0.29	255.63	550.00	-0.40	0.58	0.49	0.40	0.75	40.28
575.00	0.25	263.60	575.00	-0.41	0.55	0.37	0.24	0.67	33.88
600.00	0.46	249.23	600.00	-0.42	0.51	0.22	0.93	0.56	23.56
625.00	0.52	247.84	625.00	-0.40	0.43	0.02	0.22	0.43	3.08
650.00	0.65	235.52	649.99	-0.36	0.31	-0.20	0.72	0.37	327.38
675.00	0.79	234.50	674.99	-0.26	0.13	-0.46	0.58	0.47	285.84
700.00	0.66	229.42	699.99	-0.15	-0.07	-0.71	0.58	0.71	264.72
725.00	0.61	230.57	724.99	-0.05	-0.24	-0.92	0.21	0.95	255.12
750.00	0.51	226.21	749.99	0.05	-0.41	-1.10	0.44	1.18	249.79
775.00	0.45	241.34	774.99	0.12	-0.53	-1.27	0.56	1.37	247.34
800.00	0.70	234.53	799.99	0.18	-0.67	-1.48	1.05	1.62	245.78
825.00	0.53	229.74	824.98	0.27	-0.83	-1.69	0.70	1.88	243.89
850.00	0.48	236.45	849.98	0.35	-0.96	-1.87	0.33	2.10	242.75

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
875.00	0.61	246.36	874.98	0.39	-1.07	-2.08	0.64	2.34	242.67
900.00	0.55	222.34	899.98	0.46	-1.21	-2.28	0.99	2.58	241.94
925.00	0.52	233.33	924.98	0.56	-1.37	-2.45	0.42	2.81	240.78
950.00	0.72	226.18	949.98	0.66	-1.55	-2.65	0.85	3.07	239.76
975.00	0.54	223.64	974.98	0.79	-1.74	-2.85	0.72	3.34	238.57
1000.00	0.57	220.52	999.97	0.91	-1.92	-3.01	0.17	3.57	237.46
1025.00	0.48	218.20	1024.97	1.04	-2.10	-3.16	0.36	3.79	236.38
1050.00	0.54	218.76	1049.97	1.16	-2.27	-3.30	0.21	4.01	235.40
1075.00	0.52	254.79	1074.97	1.22	-2.40	-3.48	1.32	4.23	235.46
1100.00	0.67	229.79	1099.97	1.27	-2.52	-3.70	1.19	4.48	235.76
1125.00	0.51	215.96	1124.97	1.39	-2.71	-3.88	0.86	4.73	235.12
1150.00	0.49	236.15	1149.97	1.49	-2.85	-4.03	0.70	4.94	234.72
1175.00	0.67	224.76	1174.97	1.58	-3.02	-4.23	0.88	5.19	234.47
1200.00	0.62	216.20	1199.97	1.73	-3.23	-4.41	0.44	5.47	233.76
1225.00	0.65	219.38	1224.96	1.89	-3.45	-4.58	0.18	5.73	233.00
1250.00	0.68	212.43	1249.96	2.06	-3.68	-4.75	0.34	6.01	232.19
1275.00	0.74	207.83	1274.96	2.27	-3.95	-4.90	0.33	6.30	231.14
1300.00	0.60	203.27	1299.96	2.48	-4.21	-5.03	0.57	6.56	230.04
1325.00	0.59	214.89	1324.96	2.66	-4.44	-5.16	0.49	6.80	229.26
1350.00	0.89	214.95	1349.96	2.85	-4.70	-5.34	1.20	7.12	228.62
1375.00	0.75	206.00	1374.95	3.09	-5.01	-5.52	0.74	7.46	227.78
1400.00	0.48	199.41	1399.95	3.29	-5.26	-5.63	1.11	7.70	226.95
1425.00	0.62	206.85	1424.95	3.47	-5.48	-5.73	0.63	7.93	226.26
1450.00	0.76	220.82	1449.95	3.66	-5.73	-5.90	0.86	8.22	225.84
1475.00	0.78	205.56	1474.95	3.87	-6.01	-6.08	0.82	8.54	225.34
1500.00	0.78	196.84	1499.94	4.13	-6.32	-6.20	0.47	8.85	224.45
1525.00	0.70	200.99	1524.94	4.39	-6.63	-6.30	0.37	9.15	223.57
1550.00	0.76	206.35	1549.94	4.63	-6.92	-6.43	0.37	9.45	222.92
1575.00	0.83	217.50	1574.94	4.85	-7.21	-6.62	0.67	9.79	222.54
1600.00	0.88	208.73	1599.93	5.08	-7.52	-6.82	0.56	10.15	222.19
1625.00	0.81	210.84	1624.93	5.33	-7.84	-7.00	0.32	10.51	221.76
1650.00	0.80	200.11	1649.93	5.59	-8.16	-7.15	0.60	10.85	221.24

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
1675.00	0.87	195.51	1674.93	5.88	-8.50	-7.26	0.40	11.18	220.50
1700.00	0.71	199.43	1699.92	6.17	-8.83	-7.37	0.69	11.50	219.82
1725.00	0.62	195.67	1724.92	6.40	-9.11	-7.45	0.41	11.77	219.29
1750.00	0.68	198.71	1749.92	6.63	-9.38	-7.54	0.29	12.03	218.79
1775.00	0.71	194.71	1774.92	6.88	-9.67	-7.62	0.23	12.31	218.26
1800.00	0.81	194.79	1799.92	7.16	-9.99	-7.71	0.39	12.62	217.66
1825.00	0.77	186.26	1824.91	7.46	-10.33	-7.77	0.49	12.92	216.97
1850.00	0.70	209.98	1849.91	7.72	-10.62	-7.87	1.24	13.22	216.51
1875.00	0.84	191.48	1874.91	7.98	-10.94	-7.98	1.14	13.54	216.11
1900.00	0.63	199.05	1899.91	8.25	-11.25	-8.06	0.94	13.84	215.63
1925.00	0.81	197.27	1924.91	8.51	-11.54	-8.16	0.73	14.13	215.24
1950.00	0.75	196.20	1949.90	8.79	-11.87	-8.25	0.25	14.46	214.82
1975.00	0.75	189.08	1974.90	9.07	-12.19	-8.33	0.37	14.76	214.34
2000.00	0.69	186.46	1999.90	9.35	-12.50	-8.37	0.29	15.04	213.80
2025.00	0.44	200.37	2024.90	9.56	-12.74	-8.42	1.12	15.27	213.46
2050.00	0.27	326.60	2049.90	9.58	-12.78	-8.49	2.55	15.34	213.58
2075.00	0.83	9.26	2074.90	9.37	-12.55	-8.49	2.65	15.15	214.06
2100.00	1.50	357.37	2099.89	8.89	-12.05	-8.47	2.83	14.73	215.12
2125.00	2.69	358.01	2124.87	8.01	-11.13	-8.51	4.76	14.01	217.39
2150.00	4.72	356.17	2149.82	6.45	-9.52	-8.60	8.12	12.83	222.08
2175.00	5.20	353.84	2174.73	4.34	-7.37	-8.79	2.11	11.47	230.02
2200.00	5.69	355.94	2199.61	2.02	-5.01	-9.00	2.11	10.30	240.91
2225.00	5.62	356.16	2224.49	-0.37	-2.55	-9.17	0.28	9.51	254.47
2250.00	5.66	355.32	2249.37	-2.76	-0.10	-9.35	0.36	9.35	269.41
2275.00	5.69	357.18	2274.25	-5.16	2.37	-9.51	0.75	9.80	284.00
2300.00	5.84	356.69	2299.12	-7.59	4.88	-9.65	0.60	10.81	296.83
2325.00	5.89	356.65	2323.99	-10.06	7.43	-9.79	0.22	12.29	307.18
2350.00	5.87	355.42	2348.86	-12.55	9.98	-9.97	0.51	14.11	315.04
2375.00	6.03	356.23	2373.73	-15.07	12.57	-10.16	0.71	16.16	321.05
2400.00	6.85	358.64	2398.57	-17.78	15.37	-10.28	3.46	18.49	326.22
2425.00	8.50	3.78	2423.34	-20.93	18.71	-10.20	7.13	21.31	331.41

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
2450.00	9.33	6.40	2448.04	-24.49	22.56	-9.85	3.69	24.62	336.42
2475.00	9.69	8.47	2472.70	-28.23	26.66	-9.31	2.00	28.24	340.74
2500.00	9.73	8.77	2497.34	-32.01	30.83	-8.68	0.25	32.03	344.27
2525.00	9.77	9.14	2521.98	-35.79	35.01	-8.02	0.31	35.92	347.09
2550.00	9.88	10.15	2546.61	-39.58	39.22	-7.31	0.80	39.89	349.44
2575.00	9.82	9.77	2571.24	-43.36	43.43	-6.57	0.35	43.92	351.40
2600.00	9.87	10.38	2595.87	-47.14	47.64	-5.82	0.47	47.99	353.03
2625.00	9.83	10.25	2620.51	-50.92	51.84	-5.05	0.19	52.09	354.43
2650.00	9.92	10.37	2645.14	-54.70	56.06	-4.29	0.35	56.23	355.63
2675.00	10.08	10.94	2669.76	-58.51	60.33	-3.48	0.75	60.43	356.69
2700.00	11.00	14.88	2694.33	-62.44	64.78	-2.46	4.67	64.83	357.83
2725.00	11.89	18.29	2718.84	-66.53	69.53	-1.04	4.48	69.54	359.15
2750.00	12.29	17.98	2743.28	-70.77	74.50	0.59	1.61	74.51	0.46
2775.00	12.35	18.05	2767.71	-75.10	79.58	2.24	0.27	79.61	1.61
2800.00	12.37	18.02	2792.13	-79.44	84.66	3.90	0.07	84.75	2.64
2825.00	12.40	18.18	2816.55	-83.79	89.76	5.56	0.20	89.93	3.55
2850.00	12.36	18.14	2840.97	-88.13	94.85	7.24	0.18	95.13	4.36
2875.00	12.22	18.98	2865.39	-92.41	99.90	8.93	0.91	100.30	5.11
2900.00	12.30	18.91	2889.82	-96.67	104.92	10.65	0.31	105.46	5.80
2925.00	12.32	18.91	2914.25	-100.94	109.96	12.38	0.08	110.65	6.42
2950.00	12.28	19.12	2938.67	-105.21	114.99	14.11	0.23	115.86	7.00
2975.00	12.03	19.88	2963.11	-109.40	119.96	15.87	1.20	121.00	7.54
3000.00	12.14	19.76	2987.56	-113.55	124.88	17.64	0.47	126.12	8.04
3025.00	12.00	19.81	3012.01	-117.69	129.80	19.41	0.57	131.25	8.51
3050.00	11.50	20.91	3036.48	-121.70	134.57	21.18	2.19	136.23	8.95
3075.00	10.77	21.10	3061.01	-125.46	139.08	22.91	2.94	140.96	9.36
3100.00	10.33	22.44	3085.59	-128.99	143.33	24.61	2.00	145.43	9.74
3125.00	10.18	22.63	3110.19	-132.39	147.44	26.32	0.61	149.77	10.12
3150.00	10.21	23.09	3134.79	-135.75	151.52	28.04	0.34	154.09	10.48
3175.00	10.28	23.41	3159.40	-139.10	155.61	29.79	0.37	158.43	10.84
3200.00	10.25	22.83	3184.00	-142.47	159.70	31.54	0.44	162.79	11.17
3225.00	10.29	22.67	3208.60	-145.86	163.81	33.26	0.22	167.16	11.48

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
3250.00	10.26	23.09	3233.19	-149.25	167.92	35.00	0.33	171.53	11.77
3275.00	10.04	24.01	3257.80	-152.56	171.96	36.76	1.10	175.85	12.07
3300.00	9.98	24.37	3282.42	-155.79	175.93	38.54	0.34	180.10	12.36
3325.00	9.80	25.01	3307.05	-158.96	179.83	40.33	0.86	184.30	12.64
3350.00	9.73	24.37	3331.69	-162.08	183.68	42.10	0.50	188.44	12.91
3375.00	9.35	22.77	3356.34	-165.20	187.48	43.76	1.86	192.52	13.14
3400.00	9.04	21.13	3381.02	-168.27	191.18	45.26	1.63	196.47	13.32
3425.00	8.70	17.19	3405.72	-171.35	194.82	46.52	2.79	200.30	13.43
3450.00	8.55	13.43	3430.44	-174.49	198.44	47.51	2.33	204.05	13.47
3475.00	8.44	14.58	3455.17	-177.63	202.02	48.41	0.80	207.74	13.47
3500.00	8.30	14.38	3479.90	-180.71	205.55	49.32	0.57	211.38	13.49
3525.00	8.19	14.32	3504.64	-183.74	209.02	50.21	0.45	214.97	13.51
3550.00	8.18	14.04	3529.39	-186.76	212.47	51.08	0.18	218.52	13.52
3575.00	8.04	13.67	3554.14	-189.77	215.89	51.92	0.58	222.05	13.52
3600.00	7.96	14.03	3578.89	-192.73	219.27	52.76	0.38	225.53	13.53
3625.00	7.98	14.49	3603.65	-195.67	222.63	53.61	0.27	229.00	13.54
3650.00	7.54	14.37	3628.42	-198.53	225.90	54.45	1.78	232.37	13.55
3675.00	7.36	13.40	3653.21	-201.29	229.05	55.23	0.88	235.61	13.56
3700.00	7.04	12.80	3678.01	-203.97	232.10	55.94	1.32	238.75	13.55
3725.00	7.07	11.16	3702.83	-206.64	235.10	56.58	0.81	241.81	13.53
3750.00	6.96	12.49	3727.64	-209.29	238.09	57.20	0.78	244.87	13.51
3775.00	6.99	12.66	3752.45	-211.92	241.05	57.86	0.15	247.90	13.50
3800.00	6.95	12.89	3777.27	-214.53	244.01	58.53	0.20	250.94	13.49
3825.00	6.96	13.37	3802.08	-217.13	246.96	59.22	0.23	253.96	13.48
3850.00	7.18	12.76	3826.89	-219.77	249.96	59.92	0.96	257.04	13.48
3875.00	7.32	13.19	3851.69	-222.48	253.03	60.63	0.57	260.19	13.47
3900.00	7.24	14.24	3876.49	-225.18	256.11	61.38	0.62	263.36	13.48
3925.00	7.51	16.55	3901.29	-227.87	259.20	62.23	1.60	266.57	13.50
3950.00	7.55	16.71	3926.07	-230.57	262.34	63.17	0.20	269.84	13.54
3975.00	7.74	20.35	3950.85	-233.25	265.49	64.22	2.07	273.15	13.60
4000.00	7.76	20.74	3975.62	-235.89	268.65	65.41	0.23	276.50	13.68
4025.00	7.91	21.93	4000.39	-238.54	271.82	66.65	0.88	279.87	13.78

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4050.00	8.57	23.26	4025.13	-241.27	275.13	68.03	2.75	283.42	13.89
4075.00	9.08	22.20	4049.83	-244.19	278.67	69.51	2.13	287.21	14.01
4100.00	9.21	21.84	4074.51	-247.24	282.35	71.00	0.57	291.14	14.11
4125.00	9.05	20.42	4099.20	-250.33	286.05	72.43	1.10	295.08	14.21
4150.00	8.78	18.36	4123.90	-253.41	289.70	73.71	1.67	298.93	14.28
4175.00	8.68	16.53	4148.61	-256.51	293.32	74.85	1.18	302.72	14.32
4200.00	8.67	17.26	4173.32	-259.61	296.93	75.95	0.45	306.49	14.35
4225.00	8.62	17.72	4198.04	-262.68	300.52	77.08	0.34	310.24	14.39
4250.00	8.70	17.70	4222.75	-265.75	304.10	78.22	0.31	314.00	14.42
4275.00	8.59	17.73	4247.47	-268.81	307.68	79.36	0.43	317.75	14.46
4300.00	8.65	17.82	4272.18	-271.86	311.25	80.51	0.25	321.50	14.50
4325.00	9.03	19.97	4296.89	-274.94	314.89	81.76	2.01	325.33	14.55
4350.00	9.15	20.56	4321.57	-278.05	318.59	83.12	0.60	329.26	14.62
4375.00	9.11	20.98	4346.26	-281.16	322.30	84.53	0.31	333.20	14.70
4400.00	9.26	19.98	4370.94	-284.29	326.04	85.93	0.87	337.17	14.76
4425.00	8.88	21.82	4395.62	-287.37	329.72	87.33	1.89	341.09	14.83
4450.00	8.62	22.37	4420.33	-290.29	333.25	88.76	1.11	344.86	14.91
4475.00	7.99	21.88	4445.07	-293.06	336.59	90.12	2.51	348.45	14.99
4500.00	7.88	20.11	4469.83	-295.75	339.81	91.36	1.07	351.88	15.05
4525.00	7.88	16.36	4494.59	-298.52	343.07	92.43	2.06	355.30	15.08
4550.00	8.52	13.24	4519.34	-301.53	346.51	93.34	3.11	358.87	15.08
4575.00	8.69	12.91	4544.06	-304.74	350.16	94.18	0.73	362.60	15.05
4600.00	9.07	11.95	4568.76	-308.08	353.93	95.01	1.61	366.46	15.03
4625.00	9.54	10.68	4593.43	-311.61	357.89	95.81	2.06	370.49	14.99
4650.00	11.03	7.12	4618.03	-315.60	362.30	96.49	6.48	374.93	14.91
4675.00	11.82	6.30	4642.53	-320.11	367.22	97.06	3.24	379.83	14.81
4700.00	13.41	3.55	4666.93	-325.15	372.66	97.52	6.80	385.21	14.67
4725.00	14.31	2.82	4691.20	-330.74	378.64	97.86	3.64	391.08	14.49
4750.00	14.42	1.92	4715.42	-336.57	384.83	98.11	1.00	397.14	14.30
4775.00	14.41	1.06	4739.63	-342.44	391.06	98.27	0.86	403.21	14.11
4800.00	14.37	0.17	4763.85	-348.34	397.27	98.34	0.89	409.26	13.90



MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4825.00	14.45	0.07	4788.06	-354.26	403.49	98.35	0.31	415.30	13.70
4850.00	14.39	0.18	4812.27	-360.19	409.72	98.37	0.24	421.36	13.50
4875.00	14.54	4.17	4836.48	-366.05	415.95	98.60	4.03	427.48	13.34
4900.00	14.72	10.21	4860.67	-371.77	422.21	99.40	6.14	433.75	13.25
4925.00	15.16	14.59	4884.83	-377.33	428.50	100.78	4.84	440.19	13.24
4950.00	15.14	14.59	4908.96	-382.85	434.82	102.43	0.08	446.72	13.25
4975.00	14.73	15.70	4933.11	-388.26	441.04	104.11	1.99	453.16	13.28
5000.00	14.34	15.89	4957.31	-393.49	447.07	105.82	1.58	459.42	13.32
5025.00	13.76	15.86	4981.57	-398.54	452.91	107.48	2.30	465.49	13.35
5050.00	13.30	16.05	5005.87	-403.41	458.53	109.08	1.85	471.33	13.38
5075.00	12.77	16.19	5030.23	-408.09	463.95	110.65	2.12	476.96	13.41
5100.00	12.46	16.43	5054.62	-412.61	469.19	112.18	1.28	482.42	13.45
5125.00	12.10	16.44	5079.05	-417.01	474.29	113.69	1.41	487.73	13.48
5150.00	11.45	16.65	5103.53	-421.23	479.18	115.14	2.64	492.82	13.51
5175.00	11.23	15.72	5128.04	-425.30	483.90	116.51	1.14	497.73	13.54
5200.00	10.58	16.74	5152.59	-429.22	488.44	117.83	2.69	502.45	13.56
5225.00	10.27	16.69	5177.17	-432.95	492.78	119.13	1.23	506.97	13.59
5250.00	9.78	16.06	5201.79	-436.56	496.95	120.36	2.01	511.32	13.61
5275.00	9.80	16.28	5226.43	-440.08	501.04	121.54	0.16	515.57	13.64
5300.00	9.74	15.92	5251.07	-443.61	505.11	122.72	0.35	519.81	13.66
5325.00	9.77	15.65	5275.70	-447.14	509.19	123.87	0.22	524.04	13.67
5350.00	9.76	16.05	5300.34	-450.67	513.27	125.03	0.28	528.28	13.69
5375.00	9.70	15.86	5324.98	-454.18	517.33	126.19	0.26	532.50	13.71
5400.00	9.74	14.38	5349.62	-457.73	521.40	127.29	1.01	536.72	13.72
5425.00	9.82	15.85	5374.26	-461.29	525.50	128.40	1.05	540.96	13.73
5450.00	9.73	15.33	5398.90	-464.84	529.59	129.54	0.50	545.21	13.74
5475.00	9.78	15.75	5423.54	-468.38	533.67	130.67	0.35	549.44	13.76
5500.00	9.60	18.27	5448.18	-471.84	537.70	131.90	1.84	553.64	13.78
5525.00	9.25	23.71	5472.84	-475.03	541.52	133.37	3.82	557.70	13.84
5550.00	9.15	24.50	5497.52	-478.01	545.17	135.00	0.65	561.64	13.91
5575.00	9.25	25.16	5522.20	-480.95	548.80	136.68	0.57	565.56	13.98
5600.00	9.31	24.54	5546.87	-483.92	552.45	138.37	0.46	569.52	14.06

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
5625.00	9.32	23.77	5571.54	-486.93	556.14	140.03	0.50	573.50	14.13
5650.00	9.21	24.23	5596.22	-489.93	559.82	141.66	0.51	577.47	14.20
5675.00	9.03	22.84	5620.90	-492.91	563.45	143.24	1.15	581.38	14.26
5700.00	7.95	21.77	5645.63	-495.73	566.87	144.65	4.34	585.03	14.31
5725.00	7.02	21.00	5670.41	-498.25	569.90	145.83	3.77	588.26	14.35
5750.00	6.42	21.73	5695.24	-500.52	572.62	146.90	2.39	591.16	14.39
5775.00	6.08	21.07	5720.09	-502.63	575.16	147.89	1.42	593.87	14.42
5800.00	5.51	19.54	5744.96	-504.62	577.52	148.77	2.35	596.38	14.45
5825.00	5.12	19.21	5769.86	-506.47	579.71	149.54	1.58	598.68	14.46
5850.00	4.95	22.28	5794.76	-508.18	581.76	150.31	1.27	600.86	14.49
5875.00	4.80	20.76	5819.67	-509.83	583.73	151.09	0.78	602.97	14.51
5900.00	4.78	20.91	5844.58	-511.46	585.68	151.84	0.10	605.05	14.53
5925.00	4.68	22.84	5869.50	-513.05	587.60	152.60	0.75	607.09	14.56
5950.00	4.38	25.53	5894.42	-514.52	589.40	153.41	1.47	609.04	14.59
5975.00	3.80	34.84	5919.35	-515.71	590.94	154.30	3.52	610.76	14.63
6000.00	3.66	37.04	5944.30	-516.68	592.26	155.25	0.80	612.27	14.69
6025.00	3.38	40.81	5969.25	-517.52	593.46	156.22	1.48	613.67	14.75
6050.00	3.03	41.72	5994.22	-518.24	594.51	157.14	1.41	614.92	14.81
6075.00	2.35	45.96	6019.19	-518.80	595.35	157.94	2.83	615.95	14.86
6100.00	1.40	75.15	6044.17	-519.02	595.79	158.61	5.27	616.54	14.91
6125.00	1.52	83.73	6069.17	-518.93	595.90	159.23	0.99	616.81	14.96
6150.00	1.53	100.99	6094.16	-518.71	595.88	159.89	1.83	616.95	15.02
6175.00	1.83	111.01	6119.15	-518.30	595.67	160.59	1.67	616.94	15.09
6200.00	1.89	112.57	6144.13	-517.78	595.37	161.34	0.31	616.84	15.16
6225.00	1.75	109.14	6169.12	-517.28	595.08	162.08	0.73	616.76	15.24
6250.00	1.84	108.98	6194.11	-516.82	594.83	162.82	0.37	616.71	15.31
6275.00	1.79	108.73	6219.10	-516.34	594.57	163.57	0.21	616.66	15.38
6300.00	1.91	109.74	6244.08	-515.86	594.31	164.33	0.50	616.61	15.46
6325.00	1.89	110.82	6269.07	-515.35	594.02	165.11	0.16	616.54	15.53
6350.00	1.78	108.10	6294.06	-514.87	593.75	165.86	0.56	616.48	15.61
6375.00	1.71	107.01	6319.05	-514.43	593.52	166.58	0.31	616.46	15.68
6400.00	1.77	106.05	6344.03	-514.00	593.31	167.31	0.28	616.45	15.75

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
6425.00	1.72	103.81	6369.02	-513.59	593.11	168.05	0.34	616.46	15.82
6450.00	1.66	106.02	6394.01	-513.19	592.92	168.76	0.35	616.47	15.89
6475.00	1.70	105.81	6419.00	-512.78	592.72	169.46	0.17	616.47	15.96
6500.00	1.75	106.52	6443.99	-512.36	592.51	170.19	0.22	616.47	16.03
6525.00	1.59	107.38	6468.98	-511.95	592.30	170.88	0.67	616.46	16.09
6550.00	1.59	103.53	6493.97	-511.57	592.12	171.55	0.43	616.47	16.16
6575.00	1.58	107.74	6518.96	-511.19	591.93	172.21	0.47	616.47	16.22
6600.00	1.53	106.96	6543.95	-510.80	591.73	172.86	0.20	616.46	16.28
6625.00	1.56	103.99	6568.94	-510.43	591.55	173.51	0.33	616.47	16.35
6650.00	1.62	103.17	6593.93	-510.07	591.39	174.19	0.29	616.50	16.41
6675.00	1.55	103.97	6618.92	-509.71	591.22	174.86	0.33	616.54	16.48
6700.00	1.50	106.67	6643.91	-509.35	591.05	175.50	0.34	616.55	16.54
6725.00	1.44	106.54	6668.91	-508.99	590.86	176.11	0.24	616.55	16.60
6750.00	1.55	107.85	6693.90	-508.61	590.67	176.74	0.44	616.55	16.66
6775.00	1.53	108.17	6718.89	-508.22	590.46	177.38	0.06	616.53	16.72
6800.00	1.44	109.51	6743.88	-507.83	590.25	177.99	0.39	616.51	16.78
6825.00	1.28	108.71	6768.87	-507.47	590.06	178.55	0.66	616.48	16.84
6850.00	1.45	104.52	6793.87	-507.14	589.89	179.12	0.77	616.49	16.89
6875.00	1.36	101.87	6818.86	-506.83	589.75	179.72	0.44	616.53	16.95
6900.00	1.27	101.53	6843.85	-506.54	589.63	180.28	0.34	616.58	17.00
6925.00	1.39	101.71	6868.84	-506.26	589.52	180.85	0.45	616.63	17.05
6950.00	1.51	106.16	6893.84	-505.93	589.36	181.46	0.67	616.67	17.11
6975.00	1.06	107.85	6918.83	-505.61	589.20	181.99	1.81	616.67	17.16
7000.00	1.05	110.15	6943.83	-505.33	589.05	182.43	0.17	616.65	17.21
7025.00	1.07	111.11	6968.82	-505.05	588.89	182.86	0.11	616.63	17.25
7050.00	0.85	112.16	6993.82	-504.78	588.73	183.25	0.91	616.60	17.29
7075.00	0.92	104.70	7018.82	-504.55	588.61	183.62	0.54	616.59	17.33
7100.00	0.95	103.90	7043.81	-504.34	588.51	184.01	0.16	616.61	17.36
7125.00	0.77	103.48	7068.81	-504.14	588.42	184.38	0.73	616.63	17.40
7150.00	0.74	106.08	7093.81	-503.96	588.34	184.70	0.18	616.65	17.43
7175.00	0.70	108.86	7118.81	-503.78	588.25	185.00	0.23	616.65	17.46

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
7200.00	0.61	113.93	7143.80	-503.60	588.14	185.26	0.40	616.63	17.48
7225.00	0.62	122.29	7168.80	-503.41	588.02	185.50	0.36	616.58	17.51
7250.00	0.59	119.54	7193.80	-503.21	587.88	185.72	0.16	616.52	17.53
7275.00	0.48	118.50	7218.80	-503.04	587.77	185.93	0.45	616.47	17.55
7300.00	0.41	127.10	7243.80	-502.90	587.67	186.09	0.38	616.42	17.57
7325.00	0.48	132.18	7268.80	-502.73	587.54	186.24	0.31	616.35	17.59
7350.00	0.53	138.94	7293.80	-502.54	587.38	186.39	0.32	616.25	17.61
7375.00	0.43	124.86	7318.80	-502.35	587.24	186.54	0.62	616.16	17.62
7400.00	0.35	125.12	7343.80	-502.22	587.15	186.68	0.30	616.11	17.64
7425.00	0.29	142.02	7368.80	-502.10	587.05	186.79	0.45	616.05	17.65
7450.00	0.31	166.50	7393.79	-501.97	586.93	186.84	0.52	615.96	17.66
7475.00	0.39	169.52	7418.79	-501.82	586.79	186.87	0.31	615.82	17.67
7500.00	0.28	201.46	7443.79	-501.69	586.65	186.87	0.84	615.69	17.67
7525.00	0.23	191.79	7468.79	-501.60	586.54	186.83	0.24	615.58	17.67
7550.00	0.32	198.52	7493.79	-501.50	586.43	186.80	0.36	615.46	17.67
7575.00	0.52	225.19	7518.79	-501.39	586.28	186.70	1.11	615.29	17.66
7600.00	0.54	224.44	7543.79	-501.28	586.12	186.54	0.07	615.08	17.65
7625.00	0.45	237.81	7568.79	-501.20	585.98	186.37	0.57	614.90	17.64
7650.00	0.47	249.78	7593.79	-501.18	585.89	186.19	0.39	614.77	17.63
7675.00	0.56	262.46	7618.79	-501.19	585.84	185.97	0.59	614.65	17.61
7700.00	0.67	251.06	7643.79	-501.21	585.78	185.71	0.65	614.51	17.59
7725.00	0.65	249.44	7668.79	-501.20	585.68	185.44	0.11	614.34	17.57
7750.00	0.60	248.69	7693.78	-501.19	585.58	185.19	0.20	614.17	17.55
7775.00	0.58	263.38	7718.78	-501.20	585.52	184.94	0.61	614.03	17.53
7800.00	0.67	260.92	7743.78	-501.25	585.48	184.67	0.37	613.91	17.51
7825.00	0.69	254.21	7768.78	-501.28	585.42	184.38	0.33	613.77	17.48
7850.00	0.56	255.91	7793.78	-501.29	585.35	184.11	0.54	613.62	17.46
7875.00	0.42	252.63	7818.78	-501.30	585.29	183.91	0.55	613.50	17.44
7900.00	0.50	269.27	7843.78	-501.33	585.26	183.71	0.61	613.42	17.43
7925.00	0.51	273.85	7868.78	-501.40	585.27	183.49	0.17	613.36	17.41
7950.00	0.53	279.45	7893.77	-501.50	585.29	183.27	0.22	613.31	17.39
7975.00	0.61	287.32	7918.77	-501.63	585.35	183.02	0.45	613.30	17.36

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8000.00	0.70	292.02	7943.77	-501.80	585.45	182.75	0.42	613.31	17.34
8025.00	0.74	288.58	7968.77	-502.00	585.56	182.46	0.24	613.33	17.31
8050.00	0.75	286.08	7993.77	-502.18	585.66	182.15	0.14	613.33	17.28
8075.00	0.76	286.51	8018.77	-502.37	585.75	181.83	0.05	613.32	17.25
8100.00	0.77	289.50	8043.76	-502.56	585.85	181.51	0.16	613.33	17.21
8125.00	0.82	290.43	8068.76	-502.78	585.97	181.19	0.21	613.34	17.18
8150.00	0.82	293.25	8093.76	-503.00	586.10	180.85	0.16	613.37	17.15
8175.00	0.80	293.62	8118.76	-503.24	586.24	180.53	0.09	613.41	17.12
8200.00	0.86	289.98	8143.75	-503.47	586.38	180.19	0.30	613.44	17.08
8225.00	0.84	287.95	8168.75	-503.69	586.50	179.84	0.14	613.45	17.05
8250.00	0.82	286.92	8193.75	-503.90	586.61	179.50	0.10	613.45	17.01
8275.00	0.92	288.19	8218.74	-504.12	586.72	179.14	0.43	613.46	16.98
8300.00	0.80	286.88	8243.74	-504.33	586.83	178.78	0.48	613.46	16.94
8325.00	0.77	286.29	8268.74	-504.53	586.93	178.45	0.15	613.46	16.91
8350.00	0.76	285.71	8293.74	-504.71	587.02	178.13	0.05	613.46	16.88
8375.00	0.81	283.22	8318.74	-504.90	587.11	177.80	0.24	613.44	16.85
8400.00	0.79	283.25	8343.73	-505.08	587.19	177.46	0.08	613.42	16.82
8425.00	0.81	286.14	8368.73	-505.26	587.28	177.12	0.19	613.41	16.78
8450.00	0.81	288.57	8393.73	-505.47	587.38	176.78	0.14	613.41	16.75
8475.00	0.83	283.53	8418.73	-505.66	587.48	176.44	0.31	613.41	16.72
8500.00	0.89	279.08	8443.72	-505.85	587.56	176.07	0.36	613.37	16.68
8525.00	0.83	272.61	8468.72	-506.00	587.59	175.70	0.46	613.30	16.65
8550.00	0.87	273.81	8493.72	-506.13	587.61	175.33	0.17	613.21	16.61
8575.00	0.83	273.07	8518.71	-506.26	587.64	174.96	0.17	613.13	16.58
8600.00	0.90	272.39	8543.71	-506.40	587.65	174.58	0.31	613.04	16.55
8625.00	0.91	271.19	8568.71	-506.53	587.67	174.19	0.08	612.94	16.51
8650.00	0.95	271.26	8593.70	-506.66	587.68	173.78	0.17	612.83	16.47
8675.00	1.02	272.18	8618.70	-506.80	587.69	173.35	0.26	612.72	16.43
8700.00	1.11	269.28	8643.70	-506.95	587.69	172.89	0.41	612.60	16.39
8725.00	1.18	265.27	8668.69	-507.08	587.67	172.39	0.43	612.43	16.35
8750.00	1.19	268.98	8693.69	-507.21	587.64	171.87	0.31	612.26	16.30
8775.00	1.17	270.18	8718.68	-507.37	587.64	171.36	0.13	612.12	16.26

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8800.00	1.17	272.00	8743.68	-507.53	587.65	170.85	0.15	611.98	16.21
8825.00	1.12	267.95	8768.67	-507.68	587.65	170.35	0.38	611.84	16.17
8850.00	1.09	264.40	8793.67	-507.80	587.62	169.87	0.31	611.68	16.12
8875.00	1.11	266.29	8818.66	-507.91	587.58	169.39	0.16	611.51	16.08
8900.00	1.14	264.93	8843.66	-508.02	587.54	168.90	0.16	611.34	16.04
8925.00	1.17	262.46	8868.65	-508.12	587.49	168.40	0.24	611.15	15.99
8950.00	1.19	263.48	8893.65	-508.22	587.42	167.89	0.11	610.95	15.95
8975.00	1.16	263.86	8918.64	-508.32	587.37	167.38	0.09	610.75	15.91
9000.00	1.15	262.54	8943.64	-508.41	587.31	166.88	0.13	610.56	15.86
9025.00	1.37	265.44	8968.63	-508.53	587.25	166.34	0.94	610.35	15.81
9050.00	1.39	270.46	8993.62	-508.69	587.23	165.73	0.49	610.17	15.76
9075.00	1.45	269.91	9018.62	-508.88	587.23	165.11	0.24	610.00	15.70
9100.00	1.50	270.14	9043.61	-509.08	587.23	164.47	0.20	609.83	15.65
9125.00	1.41	269.01	9068.60	-509.27	587.23	163.83	0.37	609.65	15.59
9150.00	1.60	267.57	9093.59	-509.45	587.21	163.18	0.74	609.46	15.53
9175.00	1.66	269.06	9118.58	-509.65	587.19	162.47	0.31	609.25	15.47
9200.00	1.72	268.05	9143.57	-509.85	587.17	161.73	0.25	609.03	15.40
9225.00	1.71	269.92	9168.56	-510.07	587.16	160.98	0.23	608.82	15.33
9250.00	1.73	267.44	9193.55	-510.28	587.14	160.23	0.31	608.61	15.26
9275.00	1.63	269.94	9218.54	-510.49	587.12	159.50	0.50	608.40	15.20
9300.00	1.92	266.23	9243.52	-510.70	587.09	158.73	1.26	608.17	15.13
9325.00	1.92	261.00	9268.51	-510.86	587.00	157.90	0.70	607.86	15.06
9350.00	1.86	246.97	9293.50	-510.89	586.78	157.11	1.87	607.44	14.99
9375.00	2.07	235.52	9318.48	-510.72	586.36	156.36	1.77	606.85	14.93
9400.00	2.27	231.86	9343.46	-510.42	585.80	155.60	0.98	606.11	14.88
9425.00	2.37	232.47	9368.44	-510.07	585.18	154.80	0.40	605.31	14.82
9450.00	2.51	232.60	9393.42	-509.71	584.53	153.96	0.59	604.47	14.76
9475.00	2.51	233.26	9418.40	-509.35	583.87	153.08	0.12	603.61	14.69
9500.00	2.57	233.83	9443.37	-509.00	583.21	152.19	0.27	602.75	14.63
9525.00	2.66	230.85	9468.35	-508.61	582.52	151.29	0.66	601.84	14.56
9550.00	2.72	230.12	9493.32	-508.17	581.77	150.39	0.26	600.89	14.49

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
9575.00	2.80	229.44	9518.29	-507.71	580.99	149.47	0.34	599.91	14.43
9600.00	2.91	229.08	9543.26	-507.23	580.18	148.52	0.47	598.89	14.36
9625.00	2.83	230.06	9568.23	-506.74	579.37	147.57	0.39	597.87	14.29
9650.00	2.86	230.31	9593.20	-506.28	578.57	146.62	0.12	596.86	14.22
9675.00	2.90	228.61	9618.16	-505.79	577.76	145.66	0.39	595.84	14.15
9700.00	2.66	224.48	9643.14	-505.27	576.93	144.78	1.27	594.82	14.09
9725.00	2.16	205.43	9668.11	-504.65	576.09	144.17	3.74	593.85	14.05
9750.00	2.18	179.87	9693.10	-503.86	575.18	143.97	3.85	592.93	14.05
9775.00	2.23	174.84	9718.08	-502.93	574.22	144.02	0.79	592.01	14.08
9800.00	2.46	178.74	9743.06	-501.94	573.20	144.07	1.15	591.03	14.11
9825.00	2.51	179.66	9768.03	-500.90	572.12	144.09	0.24	589.98	14.14
9850.00	2.40	178.57	9793.01	-499.88	571.05	144.10	0.47	588.95	14.16
9875.00	2.43	177.32	9817.99	-498.86	570.00	144.14	0.23	587.94	14.19
9900.00	2.32	178.21	9842.97	-497.87	568.96	144.18	0.46	586.95	14.22
9925.00	2.27	179.43	9867.95	-496.91	567.96	144.20	0.27	585.98	14.25
9950.00	2.07	177.63	9892.93	-496.00	567.01	144.23	0.85	585.07	14.27
9975.00	1.72	174.01	9917.92	-495.20	566.19	144.28	1.48	584.29	14.30
10000.00	1.66	175.69	9942.90	-494.48	565.46	144.35	0.32	583.59	14.32
10025.00	1.61	171.11	9967.89	-493.78	564.75	144.43	0.56	582.93	14.35
10050.00	1.54	166.26	9992.88	-493.10	564.08	144.57	0.60	582.31	14.37
10075.00	1.41	172.99	10017.88	-492.46	563.45	144.68	0.87	581.73	14.40
10100.00	1.38	175.13	10042.87	-491.87	562.84	144.75	0.23	581.16	14.42
10125.00	1.42	171.18	10067.86	-491.27	562.24	144.82	0.42	580.59	14.44
10150.00	1.30	168.09	10092.85	-490.68	561.65	144.93	0.58	580.05	14.47
10175.00	1.13	170.45	10117.85	-490.15	561.13	145.02	0.71	579.57	14.49
10200.00	0.83	169.16	10142.85	-489.73	560.71	145.10	1.19	579.18	14.51
10225.00	0.39	164.32	10167.84	-489.47	560.45	145.16	1.77	578.95	14.52
10250.00	0.09	190.81	10192.84	-489.37	560.35	145.18	1.26	578.85	14.52
10275.00	0.26	301.90	10217.84	-489.39	560.36	145.12	1.20	578.85	14.52
10300.00	0.72	313.54	10242.84	-489.57	560.50	144.96	1.87	578.94	14.50
10325.00	1.13	317.18	10267.84	-489.93	560.79	144.68	1.64	579.15	14.47
10350.00	1.47	313.88	10292.83	-490.44	561.19	144.28	1.42	579.44	14.42

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DIST ft	CLOSURE DIR deg
10375.00	1.74	315.40	10317.82	-491.06	561.69	143.79	1.07	579.80	14.36
10400.00	2.11	317.66	10342.81	-491.81	562.30	143.21	1.53	580.25	14.29
10425.00	2.13	317.45	10367.79	-492.65	562.98	142.59	0.07	580.75	14.21
10450.00	2.07	317.43	10392.77	-493.49	563.65	141.97	0.22	581.26	14.14
10475.00	2.01	317.77	10417.76	-494.29	564.31	141.37	0.25	581.75	14.06
10500.00	1.75	325.69	10442.75	-495.06	564.95	140.86	1.46	582.24	14.00
10525.00	1.60	339.83	10467.74	-495.77	565.59	140.52	1.76	582.79	13.95
10550.00	1.62	343.34	10492.73	-496.47	566.26	140.30	0.40	583.38	13.92
10575.00	1.79	339.22	10517.71	-497.22	566.96	140.06	0.86	584.00	13.88
10600.00	1.91	339.45	10542.70	-498.03	567.72	139.78	0.48	584.67	13.83
10625.00	1.83	339.04	10567.69	-498.84	568.48	139.49	0.35	585.34	13.79
10650.00	1.59	338.17	10592.68	-499.58	569.17	139.21	0.96	585.95	13.74
10675.00	1.22	324.64	10617.67	-500.18	569.71	138.93	1.96	586.41	13.70
10700.00	1.82	328.99	10642.66	-500.82	570.27	138.57	2.44	586.87	13.66
10725.00	2.00	325.17	10667.65	-501.63	570.97	138.12	0.88	587.44	13.60
10750.00	1.98	329.35	10692.63	-502.47	571.70	137.65	0.59	588.04	13.54
10775.00	1.85	332.72	10717.62	-503.29	572.43	137.24	0.68	588.65	13.48
10800.00	1.83	329.90	10742.60	-504.07	573.13	136.86	0.38	589.25	13.43
10825.00	1.93	328.67	10767.59	-504.87	573.84	136.44	0.45	589.84	13.37
10850.00	1.87	334.45	10792.58	-505.69	574.57	136.05	0.81	590.45	13.32
10874.00	1.38	330.72	10816.57	-506.36	575.17	135.73	2.07	590.97	13.28



OPERATOR: PDEH LLC

WELL LOCATION

LEASE NAME & WELL NO.:

UL 20 PADDLE TAIL B #503H

PSA ACREAGE:

1,922.10 ACRES (CALLED)

NEAREST TOWN IN COUNTY:

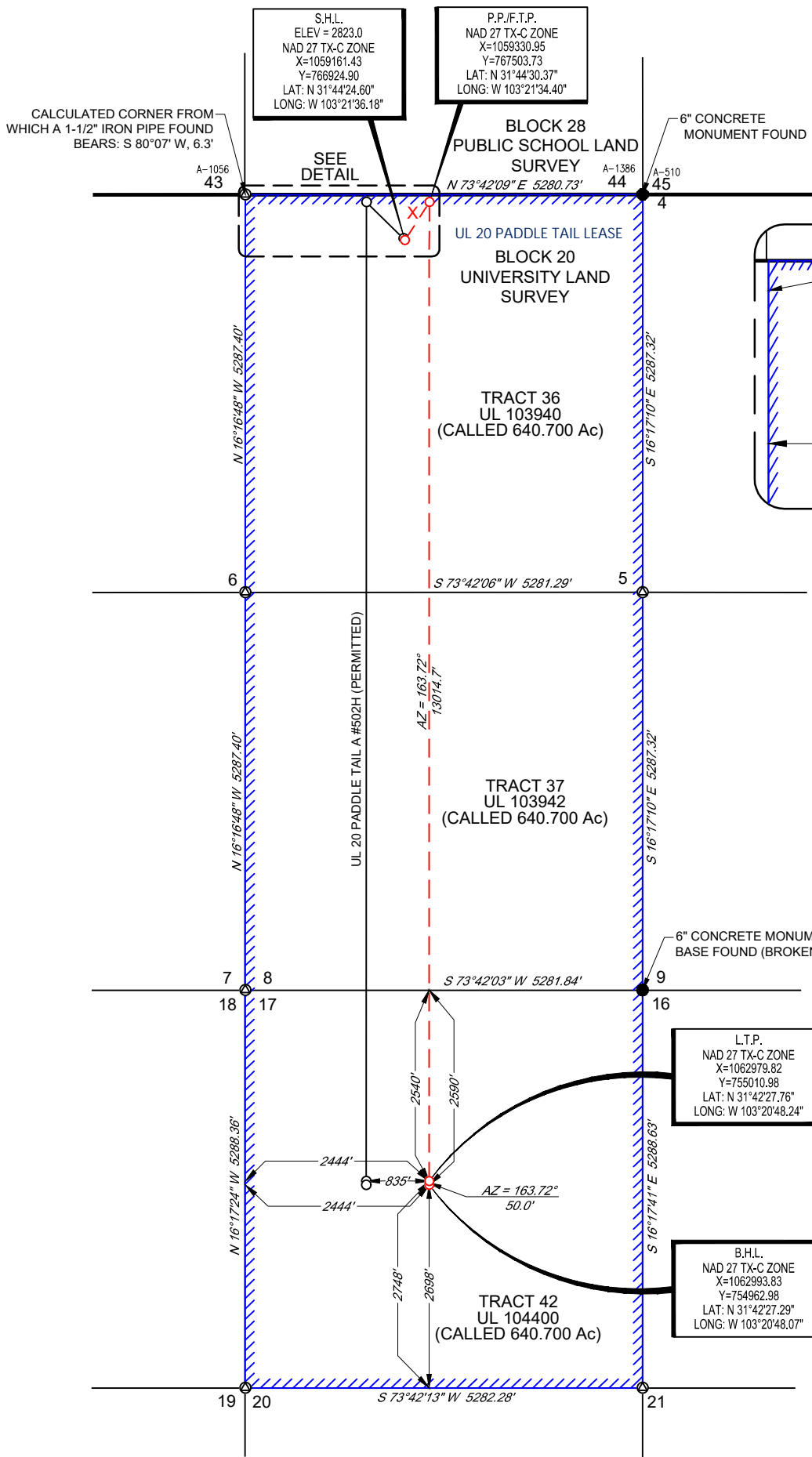
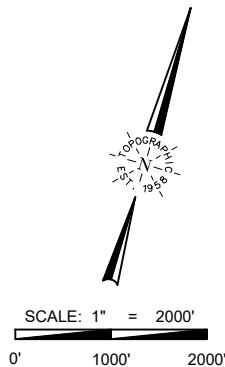
±14.2 MILES NORTHEAST OF MENTONE, TEXAS

DESCRIPTION:

S.H.L./P.P./F.T.P.: SECTION 5, BLOCK 20, UNIVERSITY LAND SURVEY

L.T.P/B.H.L.: SECTION 17, BLOCK 20, UNIVERSITY LAND SURVEY

LOVING COUNTY, TEXAS



BH10816.57TVD 575.17N 135.73E  
10874MD -506.36FT@13.28AZ

PRODUCTIVE LATERAL

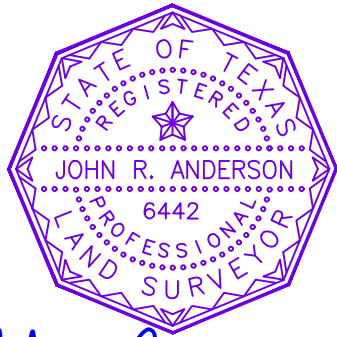
LENGTH (F.T.P. TO L.T.P.)	
1	5,187'
2	5,287'
3	2,540'
TOTAL	13,014'

TIES TABLE

POINT	PSA	SURVEY/SECTION
S.H.L.	608' FNWL	608' FNWL & 2119' FSWL
	2119' FSWL	
P.P. / F.T.P.	100' FNWL	100' FNWL & 2444' FSWL
	2444' FSWL	
L.T.P.	2444' FSWL	2540' FNWL & 2444' FSWL
	2748' FSEL	
B.H.L.	2444' FSWL	2590' FNWL & 2444' FSWL
	2698' FSEL	

LEGEND:

- PSA Boundary
- Block/Township Line
- Section Line
- Proposed Well Path
- Existing/Permitted Well Path
- Monument Found
- Calculated Corner
- Well Point



John R. Anderson 7/26/2022  
John R. Anderson, R.P.L.S. No. 6442



UL-20-5-P2 UL 20 PADDLE TAIL B #503H	REVISION:		NOTES:
	INT	DATE	
DATE: 07/20/2022			1. ORIGINAL DOCUMENT SIZE: 11" X 17" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927. UNLESS OTHERWISE NOTED. 3. THIS LOCATION AND/OR UNIT/LEASE BOUNDARY HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED BY PERMIAN DELAWARE ENTERPRISES HOLDINGS, LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE RAILROAD COMMISSION OF TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY. 4. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET. 5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY PERMIAN DELAWARE ENTERPRISES HOLDINGS, LLC OR ITS SUBSIDIARIES & AFFILIATES.
FILE: LO_UL-20-5-P2_PADDLE_TAIL_B_#503H			
DRAWN BY: A.C.L.			
SHEET: 1 OF 1			
			NOTES CONT'D: 6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF JULY 2, 2022. 7. S.H.L. = SURFACE HOLE LOCATION 8. P.P. = POINT OF PENETRATION 9. F.T.P. = FIRST TAKE POINT 10. L.T.P. = LAST TAKE POINT 11. B.H.L. = BOTTOM HOLE LOCATION