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COG

DISTRICT 7 ARTESIA O.C.D.

SURVEY REPORT

SRO 4 STATE COM #502H

PRECISION 106

3/20/2019

This survey is correct to the best of my knowledge and is supported by actual field data.

JAKE ELGER

Notarized this date 04 of APRIL, 2019

Sherry Stewart

Notary Signature

County of Midland

State of Texas



The Ultimate Partner In Wellbore Placement

SURVEY REPORT

SRO 4 STATE COM #502H

KEEPER GYRO SURVEY

CUSTOMER COG
PROJECT SRO 4 State Com #502H Keeper Gyro
survey
FIELD N/A

SDI JOB NO. OP:017360
SDI DISTRICT Midland
SDI KIT/UNIT

SITE INFORMATION

Site Name Eddy County, New Mexico
Lat/Long 32.0781892° N, 104.0965811° W
Northing 392,249.8 ft
Easting 573,329.7 ft

Section
Township
Range

MAP INFORMATION

North Reference Grid North
Grid Correction -0.13 deg
System US State Plane 1927
Datum North American Datum 1927 (Clarke 1866)
Map Zone New Mexico East: 3001



WELL INFORMATION

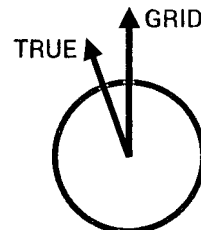
Lat/Long 32.0781889° N, 104.0964842° W
Northing 392,249.8 ft
Easting 573,359.7 ft
UWI 30-015-45548

DEPTH AND ELEVATION REFERENCE

Ground Level 2989.9 ft above Mean Sea
Level
Reference Datum RKB
Reference Height 31 ft above G.L.
Reference Elevation 3020.9 ft

VERTICAL SECTION REFERENCE

+N/-S 0 ft
+E/-W 0 ft
Proposal Direction 181.43°
Calculation Method Minimum Curvature



LOCAL GRAVITY REFERENCE INFORMATION

Local Gravity 998.527 mG [computed]
True to Grid subtract 0.13°

WELL NOTES

SRO 4 State Com #502H Keeper Gyro survey

OPERATORS

Jeffrey Loyd

SDI Operator Name (Printed)

SIGNATURE

DATE



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3/20/2019 7:05 AM Central Daylight Time

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MD	INC	AZIM	TVD	VS	IN/S	HEAV	DLS	CLOSURE	CLOSURE
ft	deg	deg	ft	ft	ft	ft	%/100ft	DIST	DIR
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.22	284.17	100.00	-0.04	0.05	-0.18	0.22	0.19	284.17
125.00	0.29	246.94	125.00	-0.03	0.03	-0.29	0.70	0.29	276.56
150.00	0.40	219.99	150.00	0.07	-0.06	-0.40	0.78	0.40	261.65
175.00	0.38	230.36	175.00	0.19	-0.18	-0.52	0.29	0.55	251.01
200.00	0.27	205.94	200.00	0.30	0.29	-0.61	0.71	0.68	244.93
225.00	0.28	229.76	225.00	0.40	0.38	-0.68	0.45	0.78	241.03
250.00	0.22	242.22	250.00	0.46	0.44	-0.77	0.30	0.89	240.34
275.00	0.05	112.34	275.00	0.49	0.47	-0.81	1.02	0.93	239.95
300.00	0.30	57.26	300.00	0.46	0.44	-0.74	1.06	0.86	238.86
325.00	0.53	56.44	325.00	0.37	-0.36	-0.58	0.98	0.68	238.48
350.00	0.59	59.61	350.00	0.24	-0.23	-0.37	0.28	0.44	238.68
375.00	0.69	40.56	374.99	0.05	-0.05	-0.16	0.92	0.17	253.81
400.00	0.67	44.16	399.99	-0.17	0.17	0.04	0.19	0.17	11.62
425.00	0.66	38.60	424.99	-0.39	0.39	0.23	0.26	0.45	30.29
450.00	0.64	25.32	449.99	-0.64	0.63	0.38	0.61	0.73	30.98
475.00	0.61	8.37	474.99	-0.90	0.88	0.45	0.74	0.99	27.22
500.00	0.51	357.93	499.99	-1.14	1.13	0.47	0.59	1.22	22.66
525.00	0.60	351.88	524.99	-1.38	1.37	0.45	0.44	1.44	18.16
550.00	0.54	342.52	549.98	-1.62	1.61	0.39	0.44	1.66	13.78
575.00	0.46	324.38	574.98	-1.81	1.80	0.30	0.71	1.83	9.46
600.00	0.51	311.92	599.98	-1.96	1.96	0.16	0.46	1.96	4.65
625.00	0.53	296.48	624.98	-2.08	2.08	-0.03	0.57	2.08	359.25
650.00	0.61	289.50	649.98	-2.17	2.18	-0.26	0.42	2.20	353.27
675.00	0.60	285.91	674.98	-2.25	2.26	-0.51	0.16	2.32	347.32
700.00	0.68	275.07	699.98	-2.29	2.31	-0.78	0.59	2.44	341.28
725.00	0.79	271.20	724.97	-2.30	2.33	-1.10	0.46	2.57	334.63
750.00	0.82	266.07	749.97	-2.28	2.32	-1.45	0.31	2.74	327.91
775.00	0.91	266.52	774.97	-2.25	2.29	-1.83	0.38	2.93	321.41
800.00	1.00	269.64	799.97	-2.22	2.28	-2.25	0.42	3.20	315.41
825.00	1.10	265.29	824.96	-2.19	2.26	-2.71	0.49	3.52	309.86
850.00	1.14	263.27	849.96	-2.13	2.21	-3.19	0.25	3.88	304.70

MD	INC	AZIM	TWD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
875.00	1.20	262.38	874.95	-2.05	2.15	-3.70	0.22	4.28	300.13
900.00	1.22	261.62	899.95	-1.97	2.07	-4.22	0.11	4.70	296.16
925.00	1.07	260.62	924.94	-1.88	2.00	-4.71	0.60	5.12	292.96
950.00	0.51	267.49	949.94	-1.83	1.95	-5.05	2.25	5.42	291.13
975.00	0.39	63.37	974.94	-1.86	1.99	-5.09	3.55	5.46	291.33
1000.00	0.95	68.15	999.94	-1.98	2.10	-4.82	2.25	5.26	293.58
1025.00	1.04	73.50	1024.93	-2.13	2.24	-4.41	0.51	4.95	296.99
1050.00	1.14	80.38	1049.93	-2.25	2.35	-3.95	0.64	4.59	300.78
1075.00	1.13	74.79	1074.92	-2.37	2.46	-3.46	0.44	4.25	305.35
1100.00	1.07	77.33	1099.92	-2.50	2.57	-3.00	0.33	3.95	310.63
1125.00	0.87	78.49	1124.92	-2.60	2.66	-2.59	0.81	3.71	315.82
1150.00	0.84	79.75	1149.91	-2.68	2.73	-2.22	0.12	3.52	320.89
1175.00	0.81	79.45	1174.91	-2.75	2.80	-1.87	0.11	3.36	326.28
1200.00	0.83	78.01	1199.91	-2.83	2.87	-1.52	0.10	3.24	332.13
1225.00	0.83	79.90	1224.90	-2.91	2.94	-1.16	0.11	3.16	338.44
1250.00	0.90	77.54	1249.90	-2.99	3.01	-0.79	0.29	3.11	345.30
1275.00	0.88	82.96	1274.90	-3.07	3.08	-0.41	0.35	3.10	352.44
1300.00	0.86	80.37	1299.90	-3.13	3.13	-0.03	0.17	3.13	359.40
1325.00	0.89	81.76	1324.89	-3.20	3.19	0.34	0.13	3.21	6.14
1350.00	0.91	81.99	1349.89	-3.26	3.25	0.73	0.08	3.33	12.68
1375.00	0.93	81.78	1374.89	-3.33	3.30	1.13	0.10	3.49	18.85
1400.00	0.94	78.60	1399.88	-3.41	3.37	1.53	0.21	3.70	24.39
1425.00	0.97	77.73	1424.88	-3.50	3.46	1.94	0.14	3.96	29.25
1450.00	0.98	78.60	1449.88	-3.60	3.54	2.35	0.07	4.25	33.57
1475.00	1.03	78.79	1474.87	-3.70	3.63	2.78	0.20	4.57	37.46
1500.00	0.95	80.07	1499.87	-3.79	3.71	3.20	0.33	4.90	40.83
1525.00	0.95	76.40	1524.87	-3.88	3.79	3.61	0.24	5.24	43.58
1550.00	0.98	73.95	1549.86	-4.00	3.90	4.02	0.19	5.60	45.84
1575.00	0.93	75.76	1574.86	-4.12	4.01	4.42	0.23	5.97	47.77
1600.00	0.92	67.84	1599.86	-4.25	4.14	4.80	0.51	6.34	49.25
1625.00	0.83	66.90	1624.85	-4.41	4.28	5.15	0.37	6.70	50.27
1650.00	0.76	73.48	1649.85	-4.54	4.40	5.48	0.45	7.03	51.22

MD	INC	AZIM	TVD	VS	IN/AS	TE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
1675.00	0.76	66.84	1674.85	-4.66	4.51	5.79	0.35	7.34	52.06
1700:00	0.73	67.53	1699:85	-4.79	4.64	6.09	0.09	7.65	52.70
1725:00	0.81	73.44	1724:84	-4.91	4.75	6.41	0.43	7.97	53.44
1750:00	0.83	67.25	1749:84	-5.04	4.87	6.74	0.37	8.32	54.15
1775:00	1.00	73.00	1774:84	-5.18	5.00	7.12	0.76	8.70	54.89
1800:00	1.26	75.58	1799:83	-5.32	5.14	7.59	1.06	9.16	55.92
1825.00	1.35	77.59	1824.83	-5.47	5.27	8.14	0.41	9.70	57.10
1850.00	1.40	78.91	1849.82	-5.61	5.39	8.73	0.24	10.26	58.31
1875.00	1.42	78.81	1874.81	-5.74	5.51	9.33	0.08	10.84	59.46
1900.00	1.39	79.96	1899.80	-5.87	5.62	9.94	0.16	11.42	60.50
1925.00	1.10	86.99	1924.80	-5.95	5.69	10.48	1.32	11.92	61.50
1950:00	0.70	98.05	1949:80	-5.95	5.68	10.87	1.73	12.26	62.41
1975:00	0.57	115.95	1974:79	-5.88	5.60	11.13	0.94	12.46	63.28
2000:00	0.64	131.70	1999:79	-5.74	5.45	11.35	0.71	12.59	64.32
2025:00	0.73	131.53	2024:79	-5.54	5.26	11.57	0.36	12.71	65.57
2050:00	1.11	123.85	2049:79	-5.31	5.02	11.89	1.59	12.90	67.12
2075.00	1.45	111.07	2074.78	-5.08	4.77	12.38	1.77	13.27	68.94
2100.00	1.97	112.39	2099.77	-4.82	4.49	13.08	2.09	13.83	71.04
2125.00	2.23	107.69	2124.75	-4.53	4.18	13.93	1.25	14.55	73.30
2150.00	2.18	103.93	2149.73	-4.29	3.92	14.86	0.61	15.37	75.23
2175.00	2.12	99.16	2174.72	-4.12	3.73	15.78	0.75	16.21	76.70
2200:00	2.10	94.29	2199:70	-4.04	3.62	16.69	0.72	17.08	77.75
2225:00	2.09	92.37	2224:68	-4.01	3.57	17.60	0.28	17.96	78.54
2250:00	1.97	87.23	2249:67	-4.03	3.57	18.49	0.88	18.83	79.07
2275:00	1.46	81.78	2274:66	-4.12	3.64	19.23	2.13	19.57	79.29
2300:00	0.90	67.12	2299:65	-4.25	3.76	19.73	2.53	20.08	79.21
2325.00	0.59	55.19	2324.65	-4.41	3.91	20.01	1.39	20.39	78.95
2350.00	0.46	28.11	2349.65	-4.57	4.07	20.17	1.10	20.57	78.59
2375.00	0.45	27.30	2374.65	-4.75	4.24	20.26	0.06	20.70	78.17
2400.00	0.45	30.90	2399.65	-4.92	4.42	20.35	0.12	20.83	77.76
2425.00	0.50	29.39	2424.65	-5.10	4.59	20.46	0.19	20.97	77.34
2450:00	0.48	29.56	2449:64	-5.29	4.78	20.56	0.06	21.11	76.91

MD	INC	AZIM	TVD	VS	±N/S	±E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
2475.00	0.48	22.55	2474.64	-5.48	4.97	20.65	0.24	21.24	76.47
2500.00	0.50	20.07	2499.64	-5.69	5.17	20.73	0.31	21.37	76.00
2525.00	0.54	24.35	2524.64	-5.90	5.38	20.82	0.21	21.50	75.51
2550.00	0.50	25.18	2549.64	-6.11	5.59	20.91	0.14	21.65	75.05
2575.00	0.54	20.99	2574.64	-6.32	5.80	21.00	0.20	21.79	74.57
2600.00	0.48	29.54	2599.64	-6.52	6.00	21.10	0.38	21.93	74.14
2625.00	0.49	24.64	2624.64	-6.71	6.18	21.19	0.18	22.08	73.73
2650.00	0.58	21.40	2649.64	-6.93	6.40	21.28	0.36	22.23	73.26
2675.00	0.46	359.70	2674.64	-7.15	6.62	21.33	0.91	22.33	72.76
2700.00	1.21	297.88	2699.63	-7.37	6.84	21.10	4.30	22.18	72.03
2725.00	1.90	285.40	2724.62	-7.58	7.08	20.46	3.06	21.65	70.92
2750.00	2.10	282.66	2749.61	-7.77	7.29	19.62	0.87	20.92	69.62
2775.00	2.23	283.82	2774.59	-7.97	7.50	18.70	0.56	20.15	68.13
2800.00	2.24	284.36	2799.57	-8.18	7.74	17.75	0.09	19.36	66.44
2825.00	2.25	281.57	2824.55	-8.38	7.96	16.80	0.44	18.59	64.64
2850.00	2.33	280.41	2849.53	-8.54	8.15	15.81	0.34	17.79	62.73
2875.00	2.48	283.23	2874.51	-8.73	8.37	14.79	0.76	16.99	60.50
2900.00	2.36	276.61	2899.49	-8.89	8.55	13.75	1.21	16.19	58.13
2925.00	2.40	280.98	2924.47	-9.02	8.71	12.73	0.74	15.42	55.62
2950.00	2.43	282.85	2949.44	-9.21	8.93	11.70	0.35	14.71	52.66
2975.00	2.30	273.74	2974.42	-9.34	9.08	10.68	1.59	14.02	49.64
3000.00	2.42	280.33	2999.40	-9.44	9.20	9.66	1.19	13.34	46.38
3025.00	2.50	279.98	3024.38	-9.61	9.39	8.60	0.33	12.74	42.47
3050.00	2.57	279.44	3049.35	-9.76	9.58	7.51	0.29	12.17	38.08
3075.00	2.60	279.37	3074.33	-9.92	9.76	6.39	0.12	11.67	33.21
3100.00	2.56	280.12	3099.30	-10.08	9.96	5.28	0.21	11.27	27.95
3125.00	2.72	281.20	3124.28	-10.27	10.17	4.15	0.66	10.98	22.20
3150.00	2.74	284.66	3149.25	-10.51	10.44	2.99	0.67	10.86	15.99
3175.00	3.23	291.92	3174.21	-10.89	10.85	1.76	2.46	10.99	9.20
3200.00	3.30	292.12	3199.17	-11.39	11.38	0.44	0.28	11.39	2.21
3225.00	3.36	291.08	3224.13	-11.89	11.92	0.91	0.35	11.95	355.62
3250.00	3.36	293.00	3249.09	-12.41	12.47	2.27	0.45	12.67	349.68

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	/100ft	ft	deg
3275.00	3.36	292.04	3274.05	-12.93	13.03	-3.62	0.23	13.52	344.46
3300.00	3.30	291.53	3299.00	-13.44	13.57	-4.97	0.25	14.45	339.88
3325.00	3.31	289.93	3323.96	-13.92	14.08	-6.32	0.37	15.43	335.83
3350.00	3.31	288.36	3348.92	-14.35	14.55	-7.68	0.36	16.45	332.17
3375.00	3.35	289.17	3373.88	-14.79	15.02	-9.06	0.26	17.54	328.91
3400.00	3.35	288.90	3398.84	-15.23	15.49	-10.44	0.06	18.68	326.04
3425.00	3.39	290.78	3423.79	-15.69	15.99	-11.82	0.47	19.89	323.54
3450.00	3.57	302.57	3448.75	-16.34	16.67	-13.17	2.95	21.25	321.70
3475.00	3.75	311.13	3473.70	-17.27	17.63	-14.44	2.29	22.79	320.69
3500.00	3.84	313.65	3498.64	-18.35	18.75	-15.66	0.76	24.43	320.13
3525.00	3.87	312.81	3523.58	-19.47	19.90	-16.88	0.26	26.10	319.68
3550.00	3.94	313.58	3548.53	-20.60	21.06	-18.12	0.35	27.79	319.29
3575.00	4.02	313.03	3573.47	-21.76	22.25	-19.39	0.37	29.51	318.94
3600.00	3.98	313.15	3598.41	-22.92	23.45	-20.66	0.16	31.25	318.61
3625.00	4.10	313.09	3623.34	-24.10	24.65	-21.95	0.47	33.01	318.32
3650.00	4.05	314.16	3648.28	-25.29	25.88	-23.24	0.38	34.78	318.08
3675.00	4.10	313.48	3673.22	-26.49	27.11	-24.52	0.30	36.55	317.87
3700.00	4.09	313.50	3698.15	-27.68	28.34	-25.81	0.05	38.33	317.67
3725.00	4.06	312.32	3723.09	-28.86	29.55	-27.12	0.36	40.10	317.46
3750.00	4.04	312.36	3748.03	-30.02	30.74	-28.42	0.06	41.86	317.24
3775.00	4.12	311.77	3772.96	-31.18	31.93	-29.74	0.35	43.63	317.03
3800.00	4.14	311.45	3797.90	-32.34	33.12	-31.09	0.13	45.43	316.82
3825.00	4.09	310.56	3822.83	-33.48	34.30	-32.44	0.34	47.21	316.59
3850.00	3.94	309.84	3847.77	-34.58	35.43	-33.78	0.64	48.95	316.37
3875.00	3.96	309.58	3872.71	-35.64	36.53	-35.10	0.14	50.66	316.14
3900.00	3.93	309.21	3897.65	-36.70	37.62	-36.43	0.17	52.37	315.92
3925.00	3.97	308.60	3922.59	-37.75	38.70	-37.77	0.23	54.08	315.70
3950.00	3.97	307.26	3947.53	-38.78	39.77	-39.14	0.37	55.80	315.46
3975.00	3.84	307.43	3972.48	-39.78	40.80	-40.49	0.51	57.48	315.22
4000.00	3.70	305.57	3997.42	-40.72	41.78	-41.81	0.76	59.11	314.98
4025.00	3.57	302.50	4022.37	-41.58	42.67	-43.13	0.92	60.67	314.69
4050.00	3.56	302.01	4047.32	-42.37	43.50	-44.44	0.14	62.19	314.38

MD	INC	AZIM	TVD	VS	IN/AS	FEAW	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
4075.00	3.52	301.69	4072.28	-43.16	44.31	-45.75	0.17	63.69	314.08
4100.00	3.63	300.65	4097.23	-43.93	45.12	-47.09	0.52	65.21	313.78
4125.00	3.51	299.51	4122.18	-44.68	45.90	-48.43	0.55	66.73	313.46
4150.00	3.43	299.92	4147.13	-45.39	46.65	-49.75	0.34	68.20	313.16
4175.00	3.45	299.31	4172.09	-46.10	47.39	-51.05	0.16	69.66	312.87
4200.00	3.52	299.03	4197.04	-46.81	48.13	-52.38	0.29	71.13	312.58
4225.00	3.52	298.95	4221.99	-47.52	48.87	-53.72	0.02	72.62	312.30
4250.00	3.52	299.46	4246.95	-48.23	49.62	-55.06	0.13	74.12	312.03
4275.00	3.54	300.65	4271.90	-48.97	50.39	-56.39	0.31	75.63	311.79
4300.00	3.61	298.30	4296.85	-49.70	51.16	-57.75	0.64	77.15	311.54
4325.00	3.54	300.35	4321.80	-50.43	51.92	-59.11	0.59	78.67	311.30
4350.00	3.57	299.60	4346.75	-51.17	52.70	-60.45	0.23	80.19	311.08
4375.00	3.58	298.97	4371.71	-51.90	53.46	-61.81	0.17	81.72	310.86
4400.00	3.50	300.16	4396.66	-52.63	54.22	-63.15	0.46	83.24	310.65
4425.00	3.47	299.84	4421.61	-53.35	54.98	-64.47	0.14	84.73	310.46
4450.00	3.61	303.20	4446.56	-54.13	55.79	-65.78	1.02	86.25	310.30
4475.00	4.03	312.10	4471.51	-55.12	56.81	-67.09	2.91	87.91	310.26
4500.00	3.80	313.36	4496.45	-56.24	57.97	-68.35	1.01	89.62	310.30
4525.00	3.74	314.35	4521.40	-57.35	59.10	-69.53	0.34	91.26	310.37
4550.00	3.78	314.87	4546.34	-58.47	60.26	-70.70	0.19	92.89	310.44
4575.00	3.71	315.18	4571.29	-59.60	61.41	-71.85	0.28	94.52	310.52
4600.00	3.84	315.22	4596.24	-60.74	62.58	-73.01	0.52	96.16	310.60
4625.00	3.72	313.26	4621.18	-61.86	63.73	-74.19	0.70	97.81	310.66
4650.00	3.72	311.97	4646.13	-62.93	64.83	-75.39	0.34	99.43	310.69
4675.00	3.58	313.07	4671.08	-63.97	65.90	-76.56	0.64	101.02	310.72
4700.00	3.55	314.55	4696.03	-65.02	66.98	-77.68	0.39	102.57	310.77
4725.00	3.68	309.54	4720.98	-66.04	68.03	-78.85	1.36	104.15	310.79
4750.00	3.35	311.16	4745.93	-67.01	69.02	-80.02	1.38	105.68	310.78
4775.00	3.35	308.63	4770.89	-67.91	69.96	-81.14	0.59	107.14	310.77
4800.00	3.43	308.78	4795.85	-68.81	70.89	-82.30	0.33	108.62	310.74
4825.00	3.44	307.88	4820.80	-69.71	71.81	-83.47	0.22	110.11	310.71
4850.00	3.36	306.78	4845.76	-70.58	72.71	-84.65	0.40	111.59	310.66

MD	INC	AZIM	TVD	VS	+N/S	+E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
4875.00	3.26	303.73	4870.72	-71.38	73.55	-85.83	0.81	113.03	310.59
4900.00	3.05	304.87	4895.68	-72.13	74.32	-86.97	0.88	114.40	310.52
4925.00	3.16	314.91	4920.64	-72.97	75.19	-88.00	2.21	115.75	310.51
4950.00	3.32	324.77	4945.60	-74.03	76.27	-88.90	2.32	117.14	310.62
4975.00	3.37	326.95	4970.56	-75.21	77.48	-89.72	0.55	118.55	310.81
5000.00	3.33	326.57	4995.52	-76.42	78.70	-90.53	0.19	119.95	311.00
5025.00	3.34	327.53	5020.47	-77.62	79.92	-91.32	0.22	121.35	311.19
5050.00	3.14	326.91	5045.43	-78.79	81.11	-92.08	0.82	122.71	311.37
5075.00	3.18	325.66	5070.40	-79.91	82.25	-92.85	0.32	124.04	311.54
5100.00	3.14	326.02	5095.36	-81.03	83.39	-93.62	0.20	125.38	311.69
5125.00	2.97	326.64	5120.32	-82.12	84.50	-94.36	0.67	126.67	311.85
5150.00	2.99	326.62	5145.29	-83.19	85.59	-95.07	0.07	127.92	311.99
5175.00	3.09	324.15	5170.25	-84.26	86.68	-95.83	0.66	129.21	312.13
5200.00	3.36	324.55	5195.21	-85.38	87.82	-96.65	1.06	130.59	312.26
5225.00	3.89	321.54	5220.16	-86.62	89.08	-97.60	2.25	132.14	312.39
5250.00	3.99	322.64	5245.10	-87.95	90.44	-98.65	0.52	133.83	312.51
5275.00	4.09	321.73	5270.04	-89.31	91.83	-99.73	0.46	135.57	312.64
5300.00	4.00	321.93	5294.98	-90.67	93.21	-100.82	0.33	137.31	312.75
5325.00	4.11	322.48	5319.92	-92.04	94.61	-101.91	0.44	139.05	312.87
5350.00	4.13	319.85	5344.85	-93.41	96.01	-103.03	0.76	140.83	312.98
5375.00	3.87	321.40	5369.79	-94.73	97.35	-104.14	1.11	142.56	313.07
5400.00	3.69	320.51	5394.74	-95.98	98.63	-105.18	0.75	144.19	313.16
5425.00	3.72	320.52	5419.68	-97.20	99.88	-106.20	0.13	145.79	313.24
5450.00	3.66	319.92	5444.63	-98.41	101.12	-107.23	0.31	147.39	313.32
5475.00	3.57	319.42	5469.58	-99.59	102.32	-108.25	0.38	148.95	313.39
5500.00	3.51	319.50	5494.54	-100.73	103.49	-109.25	0.23	150.49	313.45
5525.00	3.42	319.35	5519.49	-101.85	104.64	-110.24	0.36	151.99	313.51
5550.00	3.29	318.94	5544.45	-102.94	105.74	-111.19	0.53	153.45	313.56
5575.00	3.17	319.81	5569.41	-103.98	106.81	-112.11	0.52	154.85	313.61
5600.00	3.05	319.22	5594.37	-104.99	107.84	-112.99	0.48	156.20	313.67
5625.00	2.99	318.62	5619.34	-105.96	108.84	-113.86	0.29	157.51	313.71
5650.00	2.84	319.36	5644.30	-106.90	109.80	-114.69	0.63	158.77	313.75

MD	INC	AZIM	TMD	VS	HN/S	HE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
5675.00	2.62	319.77	5669.28	-107.79	110.70	-115.46	0.86	159.96	313.79
5700.00	2.57	318.61	5694.25	-108.62	111.56	-116.20	0.30	161.08	313.83
5725.00	2.49	318.07	5719.23	-109.43	112.38	-116.93	0.35	162.18	313.86
5750.00	2.63	317.22	5744.20	-110.23	113.21	-117.69	0.58	163.30	313.89
5775.00	3.29	314.85	5769.17	-111.14	114.13	-118.58	2.70	164.58	313.90
5800.00	3.48	314.52	5794.12	-112.15	115.17	-119.63	0.74	166.06	313.91
5825.00	3.60	315.00	5819.08	-113.21	116.26	-120.73	0.52	167.60	313.92
5850.00	3.45	313.06	5844.03	-114.25	117.32	-121.83	0.77	169.14	313.92
5875.00	3.22	311.30	5868.99	-115.20	118.30	-122.91	0.99	170.59	313.91
5900.00	3.07	310.06	5893.95	-116.07	119.20	-123.95	0.68	171.96	313.88
5925.00	2.97	308.19	5918.91	-116.87	120.03	-124.97	0.56	173.28	313.84
5950.00	2.83	305.35	5943.88	-117.60	120.79	-125.98	0.79	174.53	313.79
5975.00	2.70	302.77	5968.85	-118.26	121.46	-126.98	0.73	175.72	313.73
6000.00	2.73	302.82	5993.82	-118.87	122.10	-127.98	0.10	176.88	313.65
6025.00	2.90	302.82	6018.79	-119.51	122.77	-129.01	0.70	178.09	313.58
6050.00	3.44	308.75	6043.76	-120.29	123.58	-130.13	2.51	179.46	313.52
6075.00	3.65	309.31	6068.71	-121.24	124.55	-131.33	0.85	181.00	313.48
6100.00	3.76	310.37	6093.66	-122.24	125.59	-132.57	0.53	182.61	313.45
6125.00	3.71	308.18	6118.60	-123.24	126.62	-133.83	0.60	184.23	313.42
6150.00	3.51	306.41	6143.55	-124.16	127.57	-135.08	0.92	185.80	313.36
6175.00	3.06	301.57	6168.51	-124.94	128.38	-136.26	2.14	187.21	313.29
6200.00	2.49	298.89	6193.48	-125.52	128.99	-137.31	2.31	188.39	313.21
6225.00	2.40	293.12	6218.46	-125.97	129.46	-138.26	1.05	189.41	313.12
6250.00	2.36	294.42	6243.44	-126.36	129.88	-139.21	0.26	190.39	313.01
6275.00	2.36	292.47	6268.42	-126.75	130.29	-140.16	0.32	191.36	312.91
6300.00	2.27	292.25	6293.40	-127.11	130.67	-141.09	0.33	192.31	312.80
6325.00	2.39	289.12	6318.38	-127.44	131.03	-142.04	0.70	193.25	312.69
6350.00	2.32	289.58	6343.36	-127.76	131.37	-143.01	0.30	194.19	312.57
6375.00	2.36	295.76	6368.33	-128.13	131.76	-143.95	1.03	195.15	312.47
6400.00	2.27	297.08	6393.31	-128.55	132.21	-144.86	0.44	196.12	312.39
6425.00	2.57	320.37	6418.29	-129.19	132.87	-145.65	4.07	197.15	312.37
6450.00	2.68	327.32	6443.27	-130.10	133.79	-146.33	1.36	198.27	312.44

MD	INC	AZIM	TVD	VS	FN/S	FWW	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
6475.00	2.76	326.72	6468.24	-131.08	134.79	-146.97	0.32	199.42	312.52
6500.00	2.67	324.22	6493.21	-132.03	135.76	-147.64	0.59	200.57	312.60
6525.00	2.59	322.13	6518.18	-132.94	136.68	-148.33	0.50	201.70	312.66
6550.00	2.59	321.22	6543.16	-133.80	137.57	-149.03	0.16	202.82	312.71
6575.00	2.54	323.02	6568.13	-134.67	138.45	-149.72	0.37	203.92	312.76
6600.00	2.51	323.09	6593.11	-135.53	139.33	-150.38	0.15	205.01	312.82
6625.00	2.17	319.94	6618.09	-136.32	140.13	-151.01	1.45	206.01	312.86
6650.00	2.05	318.24	6643.07	-137.00	140.83	-151.62	0.54	206.93	312.89
6675.00	1.94	312.20	6668.06	-137.60	141.44	-152.23	0.95	207.80	312.90
6700.00	2.01	304.66	6693.04	-138.12	141.98	-152.90	1.08	208.65	312.88
6725.00	2.13	297.09	6718.02	-138.56	142.44	-153.68	1.19	209.54	312.83
6750.00	1.96	293.53	6743.01	-138.92	142.82	-154.48	0.84	210.39	312.75
6775.00	2.39	295.53	6767.99	-139.29	143.22	-155.34	1.74	211.29	312.67
6800.00	3.19	298.64	6792.96	-139.82	143.77	-156.42	3.25	212.46	312.59
6825.00	3.63	301.20	6817.92	-140.54	144.52	-157.71	1.87	213.91	312.50
6850.00	3.88	302.64	6842.86	-141.37	145.38	-159.10	1.05	215.52	312.42
6875.00	3.86	301.89	6867.81	-142.23	146.28	-160.53	0.21	217.18	312.34
6900.00	3.69	302.70	6892.75	-143.07	147.16	-161.92	0.73	218.80	312.27
6925.00	3.56	304.78	6917.70	-143.92	148.04	-163.23	0.73	220.36	312.21
6950.00	3.47	304.58	6942.66	-144.76	148.91	-164.49	0.36	221.88	312.15
6975.00	3.38	309.52	6967.61	-145.63	149.81	-165.68	1.23	223.37	312.12
7000.00	3.30	314.42	6992.57	-146.57	150.78	-166.76	1.19	224.82	312.12
7025.00	3.34	320.00	7017.53	-147.61	151.84	-167.75	1.30	226.26	312.15
7050.00	3.47	324.66	7042.48	-148.76	153.02	-168.65	1.24	227.72	312.22
7075.00	3.64	324.84	7067.43	-150.01	154.28	-169.55	0.71	229.24	312.30
7100.00	3.80	323.07	7092.38	-151.29	155.60	-170.50	0.77	230.83	312.38
7125.00	3.53	329.02	7117.33	-152.59	156.92	-171.40	1.86	232.38	312.47
7150.00	3.51	329.04	7142.28	-153.89	158.24	-172.19	0.07	233.85	312.58
7175.00	3.57	329.30	7167.23	-155.20	159.56	-172.98	0.25	235.33	312.69
7200.00	3.71	331.14	7192.18	-156.55	160.94	-173.77	0.73	236.85	312.81
7225.00	3.66	332.68	7217.13	-157.95	162.36	-174.52	0.45	238.37	312.93
7234.24	3.64	333.25	7226.35	-158.47	162.88	-174.79	0.48	238.92	312.98