

30-015 - 43046

COG

CRAIG STATE #14H

PERCISION 106

6/10/2018

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

Kolton Cotton

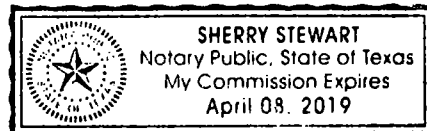
Notarized this date 1st of August, 2018.

Sherry Stewart

Notary Signature

County of Midland

State of Texas



Scientific Drilling

The Ultimate Partner In Wellbore Placement

SURVEY REPORT

CRAIG STATE #14H

KEEPER GYRO SURVEY

CUSTOMER
PROJECT
FIELD

COG
Eddy, New Mexico
Bone Sping

SDI JOB NO. **OP.010807**
SDI DISTRICT **Midland**
SDI KIT/UNIT

SITE INFORMATION

Site Name **Eddy, New Mexico**
Lat/Long **32.0927119° N, 104.2425° W**
Northing **397,721.2 ft**
Easting **527,045.7 ft**

Section
Township
Range

MAP INFORMATION

North Reference **Grid North**
Grid Correction **0.05 deg**
System **US State Plane 1927**
Datum **North American Datum 1927 (Clarke 1866)**
Map Zone **New Mexico East: 3001**

**WELL INFORMATION**

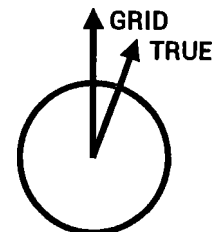
Lat/Long **32.0927° N, 104.2426° W**
Northing
Easting
UWI **30-015-43046**

DEPTH AND ELEVATION REFERENCE

Ground Level **3267 ft above Mean Sea Level**
Reference Datum **RKB**
Reference Height **31 ft above G.L.**
Reference Elevation **3298 ft**

VERTICAL SECTION REFERENCE

+N/-S **0 ft**
+E/-W **0 ft**
Proposal Direction **181.16°**
Calculation Method **Minimum Curvature**

**LOCAL GRAVITY REFERENCE INFORMATION**

Local Gravity **998.502 mG [computed]**
True to Grid **add 0.05°**

WELL NOTES**OPERATORS**

Troy Morgan

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	0.44	204.95	100.00	0.35	-0.34	-0.16	0.44	0.38	204.95
125.00	0.43	210.87	125.00	0.52	-0.51	-0.25	0.18	0.57	205.93
150.00	0.47	214.00	150.00	0.69	-0.68	-0.36	0.18	0.77	207.62
175.00	0.62	243.38	175.00	0.84	-0.83	-0.53	1.26	0.98	212.93
200.00	0.64	241.88	199.99	0.97	-0.95	-0.78	0.10	1.23	219.32
225.00	0.59	236.30	224.99	1.11	-1.09	-1.01	0.33	1.49	222.84
250.00	0.62	234.27	249.99	1.26	-1.24	-1.23	0.15	1.74	224.70
275.00	0.71	248.88	274.99	1.40	-1.37	-1.48	0.78	2.02	227.14
300.00	0.84	256.60	299.99	1.51	-1.47	-1.80	0.65	2.33	230.77
325.00	0.87	254.92	324.99	1.61	-1.56	-2.17	0.16	2.67	234.15
350.00	1.06	262.77	349.98	1.69	-1.64	-2.58	0.92	3.06	237.49
375.00	0.95	257.88	374.98	1.78	-1.72	-3.01	0.55	3.46	240.31
400.00	1.04	261.64	399.97	1.86	-1.79	-3.44	0.44	3.88	242.46
425.00	1.08	258.81	424.97	1.95	-1.87	-3.89	0.26	4.32	244.32
450.00	1.12	257.75	449.97	2.06	-1.97	-4.36	0.21	4.78	245.71
475.00	1.13	251.57	474.96	2.20	-2.10	-4.83	0.49	5.27	246.54
500.00	1.19	255.58	499.96	2.35	-2.24	-5.32	0.42	5.77	247.16
525.00	1.20	252.43	524.95	2.50	-2.38	-5.82	0.26	6.29	247.72
550.00	1.25	245.58	549.94	2.70	-2.58	-6.32	0.61	6.82	247.82
575.00	1.20	239.43	574.94	2.96	-2.82	-6.79	0.55	7.35	247.44
600.00	1.23	217.34	599.93	3.31	-3.17	-7.18	1.87	7.85	246.19
625.00	1.19	206.92	624.93	3.76	-3.61	-7.46	0.89	8.29	244.15
650.00	1.25	203.90	649.92	4.25	-4.09	-7.69	0.33	8.71	241.96
675.00	1.25	205.58	674.92	4.75	-4.59	-7.92	0.15	9.15	239.90
700.00	1.24	205.12	699.91	5.24	-5.08	-8.15	0.05	9.60	238.06
725.00	1.30	211.34	724.90	5.74	-5.57	-8.41	0.60	10.09	236.50
750.00	1.36	211.79	749.90	6.24	-6.06	-8.72	0.25	10.62	235.18
775.00	1.39	216.25	774.89	6.74	-6.56	-9.05	0.44	11.18	234.07
800.00	1.46	215.73	799.88	7.25	-7.06	-9.42	0.30	11.77	233.13
825.00	1.59	216.26	824.87	7.80	-7.60	-9.81	0.50	12.41	232.22
850.00	1.60	218.97	849.86	8.36	-8.15	-10.23	0.30	13.08	231.46

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
875.00	1.59	218.68	874.85	8.91	-8.69	-10.67	0.03	13.76	230.82
900.00	1.60	219.50	899.84	9.46	-9.23	-11.11	0.09	14.44	230.26
925.00	1.67	220.80	924.83	10.01	-9.78	-11.57	0.35	15.15	229.79
950.00	1.68	220.76	949.82	10.57	-10.33	-12.04	0.02	15.87	229.37
975.00	1.68	223.47	974.81	11.13	-10.88	-12.54	0.32	16.60	229.05
1000.00	1.69	222.79	999.80	11.67	-11.41	-13.04	0.10	17.33	228.80
1025.00	1.56	221.92	1024.79	12.21	-11.94	-13.52	0.54	18.03	228.55
1050.00	1.33	224.52	1049.78	12.68	-12.40	-13.95	0.94	18.66	228.37
1075.00	1.08	222.97	1074.78	13.06	-12.78	-14.31	1.00	19.19	228.24
1100.00	1.01	221.63	1099.77	13.41	-13.11	-14.62	0.33	19.64	228.11
1125.00	0.70	217.59	1124.77	13.70	-13.40	-14.86	1.23	20.01	227.96
1150.00	0.52	114.68	1149.77	13.87	-13.57	-14.85	3.85	20.11	227.58
1175.00	1.35	87.85	1174.77	13.89	-13.60	-14.45	3.69	19.85	226.73
1200.00	1.93	83.60	1199.76	13.82	-13.55	-13.74	2.33	19.29	225.40
1225.00	2.51	82.23	1224.74	13.68	-13.43	-12.78	2.35	18.53	223.59
1250.00	3.50	80.77	1249.70	13.46	-13.23	-11.48	3.98	17.52	220.96
1275.00	4.49	79.26	1274.64	13.12	-12.92	-9.77	3.96	16.20	217.08
1300.00	5.00	80.12	1299.56	12.71	-12.56	-7.73	2.07	14.75	211.64
1325.00	5.05	80.01	1324.46	12.29	-12.18	-5.58	0.20	13.39	204.61
1350.00	5.02	80.81	1349.36	11.88	-11.81	-3.42	0.31	12.30	196.13
1375.00	4.64	85.53	1374.28	11.58	-11.56	-1.33	2.19	11.63	186.56
1400.00	4.45	87.53	1399.20	11.42	-11.44	0.65	1.00	11.46	176.76
1425.00	4.16	87.66	1424.13	11.31	-11.36	2.52	1.16	11.64	167.48
1450.00	3.97	87.62	1449.06	11.20	-11.29	4.29	0.73	12.08	159.17
1475.00	3.96	86.03	1474.00	11.07	-11.19	6.02	0.44	12.71	151.72
1500.00	3.91	86.56	1498.94	10.92	-11.08	7.73	0.27	13.51	145.09
1525.00	3.82	82.86	1523.89	10.73	-10.92	9.41	1.05	14.42	139.26
1550.00	3.85	82.22	1548.83	10.48	-10.71	11.07	0.20	15.40	134.06
1575.00	3.65	79.63	1573.78	10.19	-10.45	12.68	1.03	16.43	129.49
1600.00	3.50	74.99	1598.73	9.82	-10.11	14.20	1.31	17.43	125.44
1625.00	3.47	72.22	1623.68	9.36	-9.68	15.66	0.69	18.41	121.73
1650.00	3.05	57.63	1648.64	8.75	-9.09	16.94	3.70	19.23	118.23

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	3.16	60.87	1673.61	8.04	-8.40	18.10	0.83	19.96	114.90
1700.00	2.91	53.08	1698.57	7.30	-7.69	19.21	1.91	20.69	111.81
1725.00	2.68	36.12	1723.54	6.43	-6.83	20.07	3.43	21.20	108.81
1750.00	2.61	28.20	1748.52	5.44	-5.86	20.68	1.48	21.49	105.82
1775.00	2.60	21.78	1773.49	4.40	-4.83	21.16	1.17	21.70	102.86
1800.00	2.56	10.97	1798.46	3.32	-3.76	21.47	1.95	21.80	99.92
1825.00	2.54	358.04	1823.44	2.22	-2.65	21.56	2.30	21.72	97.02
1850.00	2.44	346.16	1848.42	1.15	-1.58	21.42	2.10	21.47	94.23
1875.00	2.27	334.24	1873.40	0.20	-0.62	21.07	2.07	21.08	91.69
1900.00	2.29	324.35	1898.38	-0.65	0.23	20.57	1.57	20.57	89.36
1925.00	2.12	317.59	1923.36	-1.38	0.97	19.97	1.24	19.99	87.20
1950.00	2.06	314.46	1948.34	-2.02	1.63	19.33	0.51	19.40	85.18
1975.00	1.97	312.49	1973.33	-2.61	2.24	18.70	0.45	18.83	83.18
2000.00	2.05	312.33	1998.31	-3.19	2.83	18.05	0.33	18.27	81.10
2025.00	2.01	313.00	2023.29	-3.78	3.43	17.40	0.20	17.73	78.85
2050.00	2.07	312.02	2048.28	-4.37	4.03	16.74	0.28	17.22	76.47
2075.00	2.09	312.84	2073.26	-4.97	4.64	16.07	0.14	16.73	73.89
2100.00	2.13	312.53	2098.25	-5.57	5.26	15.40	0.17	16.27	71.12
2125.00	2.12	313.43	2123.23	-6.19	5.90	14.72	0.13	15.85	68.17
2150.00	2.06	311.49	2148.21	-6.80	6.51	14.04	0.36	15.48	65.12
2175.00	2.06	311.84	2173.20	-7.38	7.11	13.37	0.06	15.15	62.00
2200.00	2.25	311.45	2198.18	-7.99	7.73	12.67	0.79	14.84	58.60
2225.00	2.28	311.06	2223.16	-8.63	8.39	11.93	0.11	14.58	54.89
2250.00	2.20	312.30	2248.14	-9.26	9.04	11.20	0.37	14.39	51.10
2275.00	2.31	314.05	2273.12	-9.92	9.71	10.48	0.53	14.29	47.19
2300.00	2.37	313.04	2298.10	-10.61	10.41	9.74	0.30	14.26	43.09
2325.00	2.26	314.05	2323.08	-11.29	11.11	9.01	0.50	14.30	39.04
2350.00	2.28	312.67	2348.06	-11.95	11.79	8.29	0.23	14.41	35.12
2375.00	2.27	314.22	2373.04	-12.62	12.47	7.57	0.25	14.59	31.26
2400.00	2.11	314.32	2398.02	-13.27	13.13	6.89	0.63	14.83	27.67
2425.00	2.21	314.61	2423.00	-13.92	13.80	6.21	0.40	15.13	24.24
2450.00	2.24	315.33	2447.98	-14.59	14.48	5.53	0.16	15.50	20.88

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	2.19	316.77	2472.97	-15.27	15.18	4.85	0.31	15.94	17.74
2500.00	1.20	320.65	2497.95	-15.81	15.73	4.36	3.97	16.32	15.50
2525.00	0.20	332.30	2522.95	-16.05	15.97	4.18	4.01	16.51	14.65
2550.00	0.31	134.37	2547.95	-16.04	15.96	4.20	2.01	16.51	14.75
2575.00	0.47	137.63	2572.95	-15.92	15.84	4.32	0.67	16.42	15.26
2600.00	0.50	141.17	2597.95	-15.76	15.68	4.46	0.15	16.30	15.87
2625.00	0.50	141.82	2622.95	-15.60	15.51	4.59	0.03	16.17	16.50
2650.00	0.42	131.83	2647.95	-15.45	15.36	4.73	0.45	16.07	17.11
2675.00	0.43	146.81	2672.95	-15.32	15.22	4.85	0.44	15.97	17.67
2700.00	0.41	138.13	2697.95	-15.17	15.08	4.96	0.26	15.87	18.21
2725.00	0.44	132.90	2722.95	-15.05	14.95	5.09	0.19	15.79	18.80
2750.00	0.50	132.57	2747.95	-14.91	14.81	5.24	0.26	15.71	19.49
2775.00	0.54	133.68	2772.94	-14.76	14.65	5.40	0.15	15.62	20.24
2800.00	0.60	138.44	2797.94	-14.58	14.47	5.57	0.31	15.51	21.06
2825.00	0.50	142.47	2822.94	-14.40	14.29	5.73	0.42	15.40	21.84
2850.00	0.60	144.73	2847.94	-14.21	14.10	5.87	0.41	15.27	22.60
2875.00	0.50	143.31	2872.94	-14.02	13.90	6.01	0.40	15.15	23.37
2900.00	0.62	140.05	2897.94	-13.84	13.71	6.16	0.52	15.03	24.19
2925.00	0.63	148.33	2922.94	-13.62	13.49	6.32	0.36	14.90	25.10
2950.00	0.61	160.55	2947.94	-13.38	13.25	6.44	0.54	14.73	25.92
2975.00	0.99	186.17	2972.93	-13.04	12.91	6.46	2.03	14.43	26.58
3000.00	1.68	205.63	2997.93	-12.49	12.36	6.28	3.28	13.87	26.92
3025.00	1.92	207.23	3022.91	-11.78	11.66	5.93	0.97	13.08	26.94
3050.00	1.92	210.00	3047.90	-11.04	10.93	5.53	0.37	12.25	26.83
3075.00	1.89	211.02	3072.89	-10.31	10.21	5.11	0.17	11.42	26.56
3100.00	1.91	206.99	3097.87	-9.58	9.49	4.70	0.54	10.59	26.37
3125.00	1.97	210.93	3122.86	-8.83	8.75	4.29	0.60	9.75	26.15
3150.00	1.99	208.91	3147.84	-8.07	8.00	3.86	0.29	8.88	25.78
3175.00	1.92	208.47	3172.83	-7.32	7.25	3.45	0.28	8.03	25.47
3200.00	1.95	206.85	3197.81	-6.56	6.50	3.06	0.24	7.19	25.21
3225.00	2.02	211.88	3222.80	-5.80	5.75	2.64	0.76	6.32	24.64
3250.00	2.02	198.89	3247.78	-5.00	4.96	2.26	1.83	5.45	24.52

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	1.98	205.90	3272.77	-4.19	4.15	1.93	0.99	4.58	24.93
3300.00	2.03	207.33	3297.75	-3.40	3.37	1.54	0.28	3.70	24.53
3325.00	1.94	207.63	3322.74	-2.62	2.60	1.14	0.38	2.84	23.63
3350.00	1.32	199.15	3347.73	-1.97	1.95	0.85	2.67	2.13	23.43
3375.00	0.94	182.48	3372.72	-1.49	1.48	0.74	1.99	1.65	26.71
3400.00	0.91	182.19	3397.72	-1.09	1.08	0.73	0.11	1.30	34.08
3425.00	0.56	182.81	3422.72	-0.77	0.75	0.71	1.41	1.04	43.40
3450.00	0.21	9.76	3447.72	-0.69	0.68	0.72	3.09	0.99	46.53
3475.00	0.68	5.76	3472.72	-0.89	0.87	0.74	1.88	1.14	40.24
3500.00	0.67	6.62	3497.72	-1.18	1.16	0.77	0.08	1.40	33.47
3525.00	0.75	359.15	3522.71	-1.49	1.47	0.78	0.49	1.67	28.05
3550.00	0.85	356.38	3547.71	-1.83	1.82	0.77	0.43	1.98	22.95
3575.00	0.76	6.94	3572.71	-2.18	2.17	0.78	0.69	2.30	19.76
3600.00	0.82	8.61	3597.71	-2.52	2.51	0.83	0.25	2.64	18.22
3625.00	0.78	4.96	3622.70	-2.87	2.85	0.87	0.24	2.98	16.90
3650.00	0.74	3.17	3647.70	-3.20	3.19	0.89	0.18	3.31	15.62
3675.00	0.73	1.08	3672.70	-3.53	3.51	0.90	0.11	3.62	14.43
3700.00	0.75	0.75	3697.70	-3.85	3.83	0.91	0.06	3.94	13.33
3725.00	0.73	354.36	3722.70	-4.17	4.15	0.89	0.34	4.25	12.15
3750.00	0.75	358.06	3747.69	-4.49	4.48	0.87	0.20	4.56	11.03
3775.00	0.93	350.14	3772.69	-4.86	4.84	0.83	0.84	4.91	9.76
3800.00	0.75	349.55	3797.69	-5.21	5.20	0.77	0.70	5.26	8.40
3825.00	0.72	357.94	3822.69	-5.53	5.52	0.73	0.45	5.57	7.57
3850.00	0.79	0.74	3847.68	-5.86	5.85	0.73	0.33	5.89	7.11
3875.00	0.69	6.22	3872.68	-6.18	6.17	0.75	0.50	6.21	6.92
3900.00	0.69	358.39	3897.68	-6.48	6.47	0.76	0.38	6.51	6.70
3925.00	0.52	359.69	3922.68	-6.74	6.73	0.76	0.69	6.77	6.40
3950.00	0.44	0.96	3947.68	-6.95	6.94	0.76	0.31	6.98	6.22
3975.00	0.41	358.84	3972.68	-7.14	7.13	0.76	0.14	7.17	6.05
4000.00	0.37	7.65	3997.68	-7.31	7.30	0.76	0.30	7.34	5.98
4025.00	0.44	18.33	4022.68	-7.48	7.47	0.81	0.42	7.51	6.16
4050.00	0.36	17.62	4047.68	-7.65	7.63	0.86	0.34	7.68	6.42

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	"/100ft	ft	deg
4075.00	0.27	18.13	4072.68	-7.78	7.76	0.90	0.34	7.82	6.62
4100.00	0.20	47.16	4097.67	-7.87	7.85	0.95	0.55	7.91	6.91
4125.00	0.27	37.12	4122.67	-7.94	7.93	1.02	0.33	7.99	7.32
4150.00	0.12	43.53	4147.67	-8.01	7.99	1.07	0.61	8.06	7.63
4175.00	0.17	29.83	4172.67	-8.06	8.04	1.11	0.24	8.12	7.83
4200.00	0.14	42.75	4197.67	-8.12	8.09	1.15	0.18	8.18	8.05
4225.00	0.08	17.24	4222.67	-8.16	8.13	1.17	0.30	8.22	8.19
4250.00	0.05	284.42	4247.67	-8.18	8.15	1.17	0.39	8.24	8.14
4275.00	0.03	126.57	4272.67	-8.17	8.15	1.16	0.33	8.23	8.11
4300.00	0.02	290.88	4297.67	-8.17	8.15	1.16	0.21	8.23	8.13
4325.00	0.14	167.29	4322.67	-8.14	8.12	1.17	0.58	8.20	8.17
4350.00	0.23	180.50	4347.67	-8.06	8.04	1.17	0.42	8.13	8.29
4375.00	0.24	235.28	4372.67	-7.98	7.96	1.13	0.86	8.04	8.07
4400.00	0.26	188.00	4397.67	-7.90	7.88	1.08	0.80	7.95	7.80
4425.00	0.43	263.21	4422.67	-7.83	7.81	0.98	1.77	7.87	7.13
4450.00	0.35	243.61	4447.67	-7.78	7.76	0.81	0.62	7.81	5.99
4475.00	0.29	180.13	4472.67	-7.68	7.67	0.74	1.37	7.70	5.55
4500.00	0.31	178.43	4497.67	-7.55	7.54	0.75	0.12	7.57	5.66
4525.00	0.38	194.03	4522.67	-7.40	7.39	0.73	0.45	7.42	5.63
4550.00	0.34	191.37	4547.67	-7.25	7.24	0.69	0.18	7.27	5.48
4575.00	0.43	188.42	4572.67	-7.08	7.07	0.67	0.38	7.10	5.38
4600.00	0.50	193.37	4597.67	-6.89	6.87	0.63	0.31	6.90	5.21
4625.00	0.47	195.57	4622.67	-6.68	6.67	0.57	0.12	6.69	4.92
4650.00	0.45	184.33	4647.67	-6.48	6.47	0.54	0.37	6.50	4.76
4675.00	0.54	190.16	4672.67	-6.27	6.26	0.51	0.42	6.28	4.67
4700.00	0.46	197.21	4697.67	-6.06	6.05	0.46	0.41	6.07	4.36
4725.00	0.45	192.26	4722.67	-5.87	5.86	0.41	0.16	5.87	4.01
4750.00	0.33	181.77	4747.66	-5.70	5.69	0.39	0.53	5.70	3.90
4775.00	0.50	197.52	4772.66	-5.52	5.52	0.35	0.79	5.53	3.66
4800.00	0.38	201.94	4797.66	-5.34	5.34	0.29	0.49	5.34	3.11
4825.00	0.43	186.74	4822.66	-5.17	5.17	0.25	0.47	5.17	2.75
4850.00	0.68	186.43	4847.66	-4.93	4.93	0.22	1.03	4.93	2.56

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	0.44	198.46	4872.66	-4.69	4.69	0.17	1.08	4.69	2.12
4900.00	0.55	193.49	4897.66	-4.48	4.48	0.11	0.46	4.48	1.47
4925.00	0.63	191.30	4922.66	-4.23	4.23	0.06	0.34	4.23	0.81
4950.00	0.60	198.73	4947.66	-3.97	3.97	-0.01	0.35	3.97	359.87
4975.00	0.87	189.51	4972.65	-3.66	3.66	-0.08	1.20	3.66	358.72
5000.00	0.80	192.04	4997.65	-3.30	3.30	-0.15	0.34	3.30	357.40
5025.00	0.77	198.23	5022.65	-2.97	2.97	-0.24	0.36	2.98	355.41
5050.00	0.70	190.29	5047.65	-2.65	2.66	-0.32	0.49	2.68	353.18
5075.00	1.00	190.22	5072.64	-2.29	2.30	-0.38	1.18	2.33	350.51
5100.00	0.84	196.87	5097.64	-1.90	1.91	-0.48	0.77	1.97	346.01
5125.00	0.95	188.65	5122.64	-1.52	1.53	-0.56	0.70	1.63	339.89
5150.00	0.95	187.45	5147.64	-1.10	1.12	-0.62	0.08	1.28	331.07
5175.00	0.92	192.03	5172.63	-0.70	0.72	-0.69	0.32	0.99	316.19
5200.00	0.96	184.27	5197.63	-0.30	0.31	-0.74	0.53	0.81	292.64
5225.00	0.94	189.34	5222.63	0.12	-0.10	-0.79	0.35	0.80	262.82
5250.00	1.01	186.09	5247.62	0.54	-0.52	-0.85	0.35	1.00	238.53
5275.00	1.07	185.09	5272.62	0.99	-0.97	-0.89	0.28	1.32	222.60
5300.00	0.99	189.85	5297.61	1.44	-1.42	-0.95	0.48	1.71	213.85
5325.00	0.90	186.63	5322.61	1.85	-1.83	-1.01	0.43	2.09	208.96
5350.00	1.08	187.98	5347.61	2.28	-2.25	-1.07	0.74	2.49	205.31
5375.00	1.02	188.61	5372.60	2.73	-2.71	-1.13	0.24	2.94	202.68
5400.00	1.02	191.38	5397.60	3.17	-3.15	-1.21	0.20	3.37	201.02
5425.00	0.91	187.33	5422.59	3.59	-3.56	-1.28	0.51	3.78	199.75
5450.00	1.00	190.81	5447.59	4.00	-3.97	-1.34	0.44	4.19	198.71
5475.00	1.05	193.23	5472.59	4.44	-4.41	-1.44	0.28	4.64	198.06
5500.00	1.01	192.56	5497.58	4.88	-4.85	-1.54	0.16	5.09	197.61
5525.00	0.93	196.76	5522.58	5.29	-5.26	-1.65	0.45	5.51	197.37
5550.00	0.61	200.72	5547.58	5.61	-5.58	-1.75	1.27	5.85	197.43
5575.00	0.95	190.65	5572.57	5.94	-5.91	-1.84	1.44	6.19	197.27
5600.00	0.92	189.86	5597.57	6.35	-6.31	-1.91	0.11	6.59	196.84
5625.00	1.19	189.03	5622.57	6.80	-6.76	-1.98	1.05	7.05	196.35
5650.00	0.93	194.93	5647.56	7.26	-7.22	-2.08	1.11	7.51	196.06

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
5675.00	0.82	197.77	5672.56	7.63	-7.58	-2.18	0.47	7.89	196.07
5700.00	0.70	200.35	5697.56	7.94	-7.90	-2.29	0.50	8.22	196.19
5725.00	0.59	201.98	5722.56	8.21	-8.16	-2.39	0.45	8.50	196.35
5750.00	0.43	188.36	5747.56	8.42	-8.37	-2.46	0.81	8.72	196.35
5775.00	0.21	230.56	5772.55	8.54	-8.49	-2.50	1.22	8.85	196.43
5800.00	0.59	320.49	5797.55	8.47	-8.42	-2.62	2.50	8.82	197.29
5825.00	0.63	320.90	5822.55	8.27	-8.22	-2.79	0.18	8.68	198.76
5850.00	0.65	316.24	5847.55	8.07	-8.01	-2.97	0.21	8.54	200.38
5875.00	0.59	314.95	5872.55	7.88	-7.81	-3.16	0.23	8.43	202.04
5900.00	0.44	306.53	5897.55	7.73	-7.67	-3.33	0.66	8.36	203.49
5925.00	0.41	305.09	5922.55	7.63	-7.56	-3.48	0.14	8.32	204.74
5950.00	0.38	311.79	5947.55	7.52	-7.45	-3.62	0.22	8.28	205.89
5975.00	0.43	311.20	5972.55	7.41	-7.33	-3.75	0.21	8.24	207.07
6000.00	0.41	296.49	5997.55	7.31	-7.23	-3.90	0.44	8.22	208.33
6025.00	0.55	309.24	6022.55	7.20	-7.12	-4.07	0.72	8.20	209.77
6050.00	0.59	304.60	6047.54	7.05	-6.97	-4.27	0.23	8.17	211.50
6075.00	0.63	302.34	6072.54	6.91	-6.82	-4.49	0.19	8.17	213.36
6100.00	0.62	287.45	6097.54	6.80	-6.71	-4.74	0.65	8.21	215.22
6125.00	0.73	256.56	6122.54	6.81	-6.70	-5.02	1.49	8.37	216.81
6150.00	1.20	226.26	6147.54	7.03	-6.92	-5.36	2.72	8.76	217.76
6175.00	1.52	220.17	6172.53	7.47	-7.36	-5.77	1.41	9.35	218.08
6200.00	1.61	222.03	6197.52	8.00	-7.87	-6.21	0.39	10.03	218.29
6225.00	1.58	222.81	6222.51	8.52	-8.39	-6.68	0.13	10.72	218.56
6250.00	1.52	231.72	6247.50	8.99	-8.84	-7.18	1.00	11.39	219.06
6275.00	1.51	254.67	6272.49	9.29	-9.14	-7.76	2.41	11.98	220.33
6300.00	1.48	259.91	6297.48	9.45	-9.28	-8.39	0.56	12.51	222.12
6325.00	1.44	266.44	6322.48	9.54	-9.36	-9.02	0.69	13.00	223.96
6350.00	1.46	302.60	6347.47	9.40	-9.20	-9.60	3.59	13.30	226.21
6375.00	1.61	328.54	6372.46	8.94	-8.73	-10.05	2.82	13.32	229.02
6400.00	1.67	341.69	6397.45	8.29	-8.09	-10.35	1.52	13.14	232.00
6425.00	1.78	349.00	6422.44	7.57	-7.36	-10.54	0.97	12.86	235.08
6450.00	2.13	354.91	6447.42	6.73	-6.52	-10.66	1.62	12.49	238.55

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
6475.00	2.47	1.74	6472.40	5.73	-5.52	-10.68	1.75	12.02	242.68
6500.00	2.46	1.20	6497.38	4.66	-4.44	-10.65	0.10	11.54	247.36
6525.00	2.50	1.21	6522.36	3.58	-3.36	-10.63	0.16	11.15	252.44
6550.00	2.46	356.31	6547.33	2.50	-2.28	-10.65	0.86	10.90	257.91
6575.00	2.46	352.21	6572.31	1.43	-1.22	-10.76	0.70	10.83	263.55
6600.00	2.40	348.86	6597.29	0.39	-0.17	-10.93	0.61	10.94	269.10
6625.00	2.42	349.61	6622.27	-0.64	0.86	-11.13	0.16	11.16	274.43
6650.00	2.18	351.17	6647.25	-1.62	1.85	-11.30	1.01	11.45	279.31
6675.00	2.03	350.24	6672.23	-2.53	2.76	-11.45	0.60	11.78	283.55
6700.00	2.11	351.76	6697.21	-3.42	3.65	-11.59	0.36	12.15	287.49
6725.00	1.82	350.97	6722.20	-4.26	4.50	-11.72	1.15	12.55	291.00
6750.00	1.56	356.07	6747.19	-4.99	5.23	-11.80	1.21	12.91	293.90
6775.00	1.33	357.14	6772.18	-5.62	5.86	-11.84	0.89	13.21	296.33
6800.00	1.02	4.91	6797.17	-6.13	6.37	-11.84	1.42	13.44	298.29
6825.00	0.92	88.97	6822.17	-6.36	6.60	-11.62	5.20	13.36	299.59
6850.00	1.62	119.71	6847.17	-6.20	6.42	-11.11	3.80	12.83	300.04
6875.00	1.77	119.71	6872.15	-5.84	6.06	-10.46	0.61	12.09	300.06
6900.00	1.83	119.22	6897.14	-5.47	5.67	-9.78	0.25	11.30	300.10
6925.00	1.65	124.50	6922.13	-5.09	5.27	-9.13	0.99	10.55	299.99
6950.00	1.50	128.70	6947.12	-4.69	4.86	-8.58	0.74	9.87	299.54
6975.00	1.20	133.60	6972.11	-4.31	4.48	-8.14	1.29	9.29	298.82
7000.00	0.98	137.51	6997.11	-3.98	4.14	-7.80	0.93	8.83	297.95
7025.00	0.77	136.02	7022.11	-3.71	3.86	-7.54	0.83	8.47	297.11
7050.00	0.71	130.29	7047.10	-3.49	3.64	-7.31	0.40	8.16	296.48
7075.00	0.87	133.10	7072.10	-3.27	3.41	-7.05	0.66	7.83	295.81
7100.00	0.99	130.92	7097.10	-3.00	3.14	-6.75	0.51	7.45	294.95
7125.00	1.30	132.71	7122.09	-2.68	2.81	-6.38	1.23	6.97	293.75
7150.00	1.48	133.49	7147.09	-2.27	2.39	-5.94	0.73	6.40	291.95
7175.00	1.73	142.08	7172.08	-1.76	1.87	-5.47	1.38	5.79	288.90
7188.00	1.81	146.19	7185.07	-1.44	1.55	-5.24	1.15	5.46	286.48