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COG

DISTRICT 7 ARTESIAO.C

SURVEY REPORT

SRO 4 STATE COM #501H

PRECISION #106

4/7/2019

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

JAKE ELGER

Notarized this date 13th of MAY

2019

Sherry Stewart

Notary Signature

County of Midland

State of Texas



The Ultimate Partner In Wellbore Placement

SURVEY REPORT

SRO 4 STATE COM #501H

KEEPER GYRO SURVEY

CUSTOMER
PROJECT
FIELD

COG
SRO 4 State Com #501H
N/A

SDI JOB NO.
SDI DISTRICT
SDI KIT/UNIT

OP.017801
Midland

SITE INFORMATION

Site Name
Lat/Long
Northing
Easting

SRO 4 State Com
32.078312° N, 104.096876° W

Section
Township
Range

MAP INFORMATION

North Reference
Grid Correction
System
Datum
Map Zone

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



WELL INFORMATION

Lat/Long
Northing
Easting
UWI

32.078312° N, 104.096876° W
30-015-45547

DEPTH AND ELEVATION REFERENCE

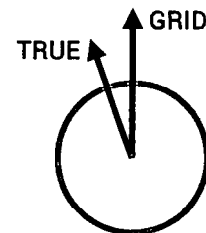
Ground Level
Reference Datum
Reference Height
Reference Elevation

2990 ft above Mean Sea Level
RKB
31 ft above G.L.
3021 ft

VERTICAL SECTION REFERENCE

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

0 ft
0 ft
177.93°
Minimum Curvature



LOCAL GRAVITY REFERENCE INFORMATION

Local Gravity
True to Grid

998.527 mG [computed]
subtract 0.13°

WELL NOTES

Keeper Gyro Survey

OPERATORS

Troy Morgan

SDI Operator Name (Printed)

SIGNATURE

DATE



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4/7/2019 2:17 PM Central Daylight Time

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MD	INC	AZIM	TVD	VS	IN/S	EA/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	0.41	302.65	100.00	-0.21	0.19	-0.30	0.41	0.36	302.65
125.00	0.34	286.63	125.00	-0.28	0.26	-0.45	0.51	0.52	300.39
150.00	0.36	268.29	150.00	-0.30	0.28	-0.60	0.45	0.66	295.27
175.00	0.61	270.03	175.00	-0.31	0.28	-0.81	0.99	0.86	289.12
200.00	0.83	251.58	200.00	-0.26	0.22	-1.12	1.28	1.14	281.34
225.00	0.87	245.33	224.99	-0.14	0.09	-1.46	0.41	1.46	273.40
250.00	0.82	240.04	249.99	0.02	0.08	-1.79	0.38	1.79	267.38
275.00	0.77	246.71	274.99	0.16	0.24	-2.10	0.42	2.11	263.55
300.00	0.56	247.02	299.99	0.27	0.35	-2.36	0.82	2.39	261.54
325.00	0.31	234.14	324.98	0.35	-0.44	-2.53	1.07	2.57	260.15
350.00	0.25	228.24	349.98	0.42	-0.52	-2.63	0.29	2.68	258.90
375.00	0.18	254.06	374.98	0.46	-0.56	-2.71	0.46	2.77	258.26
400.00	0.16	269.16	399.98	0.47	-0.57	-2.78	0.21	2.84	258.33
425.00	0.25	244.26	424.98	0.49	-0.60	-2.86	0.51	2.93	258.20
450.00	0.71	249.21	449.98	0.57	-0.68	-3.06	1.84	3.13	257.51
475.00	1.05	248.31	474.98	0.69	-0.82	-3.42	1.35	3.51	256.55
500.00	1.23	238.75	499.98	0.90	-1.04	-3.86	1.04	3.99	254.91
525.00	1.34	231.59	524.97	1.20	-1.36	-4.31	0.80	4.52	252.50
550.00	1.31	231.90	549.96	1.55	-1.72	-4.77	0.15	5.07	250.18
575.00	1.09	213.83	574.96	1.91	-2.09	-5.13	1.74	5.54	247.80
600.00	0.91	201.99	599.95	2.28	-2.47	-5.33	1.07	5.88	245.12
625.00	0.95	192.01	624.95	2.66	-2.86	-5.45	0.67	6.15	242.31
650.00	0.89	195.29	649.95	3.05	-3.25	-5.54	0.33	6.43	239.62
675.00	0.83	191.37	674.94	3.41	-3.61	-5.63	0.34	6.69	237.31
700.00	0.89	196.31	699.94	3.77	-3.98	-5.72	0.38	6.97	235.20
725.00	1.02	209.66	724.94	4.14	-4.35	-5.88	1.02	7.32	233.50
750.00	1.18	206.08	749.93	4.55	-4.78	-6.11	0.72	7.75	231.96
775.00	1.31	210.42	774.93	5.02	-5.26	-6.36	0.62	8.25	230.45
800.00	1.47	206.81	799.92	5.54	-5.79	-6.65	0.73	8.82	228.99
825.00	1.16	200.75	824.91	6.06	-6.31	-6.89	1.33	9.34	227.51
850.00	0.95	200.38	849.91	6.48	-6.74	-7.05	0.84	9.75	226.28

MD	INC	AZIM	TVD	VS	IN/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
875.00	0.42	157.28	874.91	6.76	-7.02	-7.09	2.83	9.98	225.27
900.00	0.55	73.88	899.91	6.82	-7.07	-6.94	2.62	9.91	224.44
925.00	0.87	67.35	924.90	6.72	-6.96	-6.64	1.32	9.62	223.65
950.00	0.82	56.31	949.90	6.56	-6.79	-6.32	0.69	9.28	222.93
975.00	0.78	51.35	974.90	6.36	-6.59	-6.04	0.32	8.93	222.51
1000.00	0.65	48.70	999.90	6.17	-6.39	-5.80	0.52	8.63	222.23
1025.00	0.50	41.84	1024.90	6.00	-6.21	-5.62	0.68	8.38	222.13
1050.00	0.48	35.45	1049.90	5.84	-6.05	-5.48	0.23	8.16	222.22
1075.00	0.41	49.48	1074.89	5.70	-5.90	-5.36	0.53	7.97	222.23
1100.00	0.41	22.43	1099.89	5.57	-5.76	-5.25	0.77	7.80	222.37
1125.00	0.27	42.32	1124.89	5.44	-5.63	-5.18	0.74	7.65	222.60
1150.00	0.26	25.58	1149.89	5.35	-5.54	-5.12	0.31	7.54	222.72
1175.00	0.29	12.89	1174.89	5.24	-5.43	-5.08	0.27	7.44	223.09
1200.00	0.09	16.61	1199.89	5.16	-5.35	-5.06	0.77	7.36	223.40
1225.00	0.03	282.86	1224.89	5.14	-5.33	-5.06	0.40	7.35	223.52
1250.00	0.15	43.88	1249.89	5.12	-5.30	-5.05	0.70	7.32	223.57
1275.00	0.10	58.36	1274.89	5.08	-5.27	-5.00	0.26	7.27	223.53
1300.00	0.24	75.46	1299.89	5.06	-5.24	-4.94	0.62	7.20	223.26
1325.00	0.48	62.90	1324.89	5.01	-5.18	-4.79	0.99	7.06	222.75
1350.00	0.65	90.63	1349.89	4.97	-5.14	-4.56	1.28	6.87	221.56
1375.00	0.46	48.69	1374.89	4.91	-5.07	-4.34	1.75	6.67	220.53
1400.00	0.40	47.57	1399.89	4.79	-4.95	-4.20	0.24	6.49	220.31
1425.00	0.18	302.17	1424.89	4.71	-4.87	-4.17	1.92	6.41	220.56
1450.00	0.28	347.96	1449.89	4.63	-4.79	-4.21	0.82	6.38	221.34
1475.00	0.25	276.96	1474.89	4.56	-4.72	-4.28	1.25	6.37	222.20
1500.00	0.36	233.43	1499.89	4.60	-4.76	-4.40	1.00	6.48	222.74
1525.00	0.40	243.29	1524.89	4.68	-4.85	-4.54	0.30	6.64	223.13
1550.00	0.43	223.51	1549.89	4.78	-4.95	-4.68	0.59	6.81	223.38
1575.00	0.73	226.82	1574.89	4.95	-5.13	-4.86	1.18	7.07	223.46
1600.00	0.73	225.81	1599.88	5.16	-5.35	-5.09	0.06	7.39	223.58
1625.00	0.48	210.43	1624.88	5.36	-5.55	-5.26	1.19	7.65	223.45
1650.00	0.57	203.48	1649.88	5.56	-5.76	-5.36	0.44	7.87	222.97

MD ft	INC deg	AZIM deg	TVD ft	VS ft	N/S ft	E/W ft	DLS %/100ft	CLOSURE DIST ft	CLOSURE DIR deg
1675.00	0.52	200.70	1674.88	5.78	-5.98	-5.45	0.22	8.09	222.37
1700.00	0.53	192.92	1699.88	6.00	-6.20	-5.52	0.29	8.30	221.68
1725.00	0.64	157.95	1724.88	6.24	-6.44	-5.49	1.46	8.47	220.47
1750.00	0.71	117.91	1749.88	6.45	-6.64	-5.31	1.87	8.50	218.62
1775.00	0.81	122.88	1774.87	6.62	-6.81	-5.02	0.48	8.46	216.39
1800.00	1.11	114.35	1799.87	6.83	-7.01	-4.65	1.31	8.41	213.58
1825.00	1.39	109.49	1824.86	7.05	-7.21	-4.15	1.21	8.31	209.91
1850.00	1.73	109.27	1849.86	7.30	-7.43	-3.50	1.34	8.22	205.24
1875.00	1.87	109.96	1874.84	7.59	-7.70	-2.76	0.60	8.18	199.76
1900.00	1.92	112.95	1899.83	7.92	-8.00	-2.00	0.43	8.24	194.01
1925.00	2.10	117.71	1924.81	8.33	-8.37	-1.21	0.99	8.46	188.19
1950.00	1.80	119.90	1949.80	8.76	-8.78	-0.46	1.21	8.79	183.00
1975.00	2.21	125.19	1974.78	9.26	-9.26	0.27	1.78	9.26	178.30
2000.00	2.40	114.80	1999.76	9.79	-9.75	1.14	1.84	9.82	173.31
2025.00	2.16	113.10	2024.74	10.23	-10.16	2.05	0.99	10.36	168.58
2050.00	2.26	111.97	2049.73	10.63	-10.53	2.94	0.42	10.93	164.39
2075.00	2.63	109.52	2074.70	11.04	-10.90	3.94	1.56	11.59	160.14
2100.00	2.81	108.84	2099.67	11.47	-11.29	5.06	0.71	12.37	155.87
2125.00	2.74	110.80	2124.65	11.92	-11.70	6.20	0.46	13.24	152.09
2150.00	2.93	112.68	2149.61	12.42	-12.16	7.35	0.85	14.21	148.86
2175.00	3.04	109.89	2174.58	12.93	-12.63	8.56	0.73	15.26	145.88
2200.00	2.77	108.61	2199.55	13.40	-13.05	9.76	1.11	16.30	143.22
2225.00	2.37	111.58	2224.52	13.82	-13.44	10.81	1.70	17.25	141.18
2250.00	1.94	129.34	2249.51	14.30	-13.89	11.62	3.16	18.11	140.09
2275.00	1.56	137.16	2274.49	14.84	-14.41	12.18	1.80	18.87	139.80
2300.00	1.48	152.43	2299.49	15.39	-14.94	12.56	1.64	19.52	139.96
2325.00	1.39	155.80	2324.48	15.96	-15.51	12.83	0.50	20.13	140.40
2350.00	0.97	147.51	2349.47	16.42	-15.96	13.07	1.80	20.63	140.69
2375.00	0.76	158.54	2374.47	16.76	-16.29	13.24	1.07	21.00	140.90
2400.00	0.46	167.94	2399.47	17.02	-16.54	13.32	1.27	21.24	141.16
2425.00	0.37	153.20	2424.47	17.19	-16.71	13.38	0.54	21.41	141.32
2450.00	0.39	123.58	2449.47	17.31	-16.83	13.49	0.78	21.57	141.30

MD	INC	AZIM	TVD	VS	IN/S	E/W	DIS	CLOSURE	CLOSURE
ft	deg	deg	ft	ft	ft	ft	%/100ft	DIST	DIR
2475.00	0.33	96.92	2474.47	17.37	-16.89	13.63	-0.71	21.70	141.10
2500.00	0.22	177.63	2499.47	17.43	-16.95	13.70	1.45	21.79	141.04
2525.00	0.17	184.90	2524.47	17.52	-17.03	13.70	0.22	21.86	141.19
2550.00	0.36	129.36	2549.47	17.61	-17.12	13.76	1.21	21.96	141.21
2575.00	0.79	88.98	2574.46	17.66	-17.17	13.99	2.26	22.15	140.82
2600.00	1.82	83.05	2599.46	17.63	-17.12	14.56	4.15	22.47	139.61
2625.00	2.84	82.30	2624.44	17.54	-16.98	15.57	4.07	23.04	137.49
2650.00	3.99	78.36	2649.39	17.33	-16.73	17.03	4.69	23.87	134.48
2675.00	4.90	75.98	2674.32	16.96	-16.29	18.92	3.72	24.97	130.73
2700.00	5.16	71.91	2699.22	16.43	-15.68	21.03	1.78	26.23	126.72
2725.00	5.31	72.68	2724.12	15.82	-14.99	23.20	0.66	27.62	122.87
2750.00	4.78	71.57	2749.02	15.22	-14.32	25.29	2.15	29.06	119.51
2775.00	5.24	72.25	2773.92	14.62	-13.64	27.37	1.85	30.58	116.49
2800.00	5.23	72.84	2798.82	14.01	-12.95	29.55	0.22	32.26	113.67
2825.00	5.16	72.12	2823.72	13.41	-12.27	31.70	0.40	34.00	111.16
2850.00	5.14	71.08	2848.62	12.78	-11.56	33.83	0.38	35.75	108.87
2875.00	5.28	72.63	2873.51	12.15	-10.86	35.99	0.80	37.59	106.79
2900.00	5.43	72.63	2898.40	11.54	-10.16	38.22	0.60	39.54	104.89
2925.00	5.41	70.37	2923.29	10.87	-9.41	40.46	0.85	41.54	103.10
2950.00	5.51	70.78	2948.18	10.16	-8.62	42.70	0.44	43.56	101.42
2975.00	5.21	68.80	2973.07	9.43	-7.82	44.89	1.42	45.57	99.88
3000.00	5.92	67.61	2997.95	8.61	-6.91	47.14	2.87	47.65	98.34
3025.00	6.66	64.32	3022.80	7.58	-5.79	49.64	3.29	49.98	96.66
3050.00	6.79	62.53	3047.63	6.37	-4.48	52.26	0.98	52.45	94.90
3075.00	6.96	60.79	3072.45	5.04	-3.06	54.89	1.08	54.98	93.19
3100.00	6.59	62.24	3097.27	3.73	-1.66	57.48	1.64	57.51	91.65
3125.00	7.00	60.49	3122.10	2.41	-0.24	60.08	1.84	60.08	90.23
3150.00	7.01	61.13	3146.91	1.02	1.25	62.74	0.31	62.75	88.86
3175.00	7.02	61.09	3171.72	-0.36	2.72	65.41	0.06	65.47	87.62
3200.00	7.05	61.96	3196.54	-1.72	4.18	68.10	0.44	68.23	86.49
3225.00	7.13	60.96	3221.35	-3.10	5.66	70.81	0.58	71.04	85.43
3250.00	7.19	60.72	3246.15	-4.51	7.18	73.53	0.26	73.88	84.43

MD	INC	AZIM	TVD	VS	IN/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
3275.00	6.94	61.88	3270.96	-5.89	-8.65	-76.23	1.16	76.72	83.52
3300.00	6.74	62.06	3295.78	-7.20	-10.05	-78.86	0.79	79.50	82.74
3325.00	6.66	62.78	3320.61	-8.45	11.40	81.44	0.47	82.24	82.03
3350.00	6.78	64.26	3345.44	-9.66	12.70	84.06	0.84	85.01	81.41
3375.00	6.72	61.16	3370.27	-10.91	14.05	86.67	1.47	87.80	80.79
3400.00	6.68	61.63	3395.10	-12.21	15.45	89.23	0.27	90.56	80.18
3425.00	6.73	63.37	3419.93	-13.47	16.80	91.82	0.84	93.34	79.63
3450.00	6.88	62.05	3444.75	-14.73	18.15	94.45	0.86	96.18	79.12
3475.00	6.70	61.23	3469.57	-16.04	19.56	97.05	0.82	99.00	78.61
3500.00	6.80	59.78	3494.40	-17.39	21.00	99.61	0.80	101.80	78.09
3525.00	6.73	62.08	3519.23	-18.73	22.43	102.18	1.12	104.62	77.62
3550.00	6.91	60.91	3544.05	-20.05	23.85	104.79	0.92	107.47	77.18
3575.00	6.87	60.89	3568.87	-21.41	25.31	107.41	0.17	110.36	76.74
3600.00	6.98	61.28	3593.69	-22.78	26.77	110.05	0.49	113.26	76.33
3625.00	6.98	59.98	3618.50	-24.17	28.26	112.70	0.63	116.19	75.92
3650.00	7.08	60.64	3643.31	-25.59	29.77	115.36	0.53	119.14	75.53
3675.00	7.12	60.68	3668.12	-27.00	31.29	118.05	0.15	122.13	75.16
3700.00	7.09	61.16	3692.93	-28.41	32.79	120.76	0.26	125.13	74.81
3725.00	7.23	60.76	3717.73	-29.82	34.30	123.48	0.57	128.16	74.47
3750.00	7.15	58.41	3742.54	-31.31	35.89	126.18	1.22	131.18	74.12
3775.00	7.19	60.33	3767.34	-32.80	37.48	128.86	0.97	134.20	73.78
3800.00	7.26	60.37	3792.14	-34.25	39.03	131.60	0.29	137.26	73.48
3825.00	7.22	60.72	3816.94	-35.70	40.58	134.34	0.24	140.34	73.19
3850.00	7.11	60.90	3841.75	-37.13	42.11	137.06	0.45	143.39	72.92
3875.00	7.02	60.75	3866.56	-38.53	43.60	139.75	0.36	146.40	72.67
3900.00	6.90	60.01	3891.37	-39.93	45.10	142.39	0.60	149.36	72.42
3925.00	5.91	61.92	3916.22	-41.20	46.46	144.82	4.06	152.09	72.21
3950.00	5.82	61.81	3941.09	-42.32	47.66	147.08	0.36	154.61	72.04
3975.00	5.46	60.19	3965.97	-43.43	48.86	149.23	1.57	157.02	71.87
4000.00	5.29	58.89	3990.86	-44.55	50.04	151.25	0.84	159.31	71.69
4025.00	5.13	61.91	4015.75	-45.60	51.16	153.22	1.28	161.54	71.53
4050.00	4.72	59.80	4040.66	-46.57	52.21	155.09	1.78	163.65	71.40

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	4.86	57.65	4065.57	-47.59	53.29	156.88	0.91	165.68	71.24
4100.00	4.89	59.75	4090.48	-48.63	54.39	158.69	0.72	167.76	71.08
4125.00	4.72	59.70	4115.40	-49.62	55.45	160.50	0.65	169.81	70.94
4150.00	4.80	61.44	4140.31	-50.57	56.47	162.31	0.66	171.85	70.82
4175.00	5.16	60.07	4165.21	-51.56	57.53	164.20	1.51	173.99	70.69
4200.00	4.93	59.00	4190.12	-52.61	58.65	166.10	0.99	176.15	70.55
4225.00	4.79	61.05	4215.03	-53.60	59.71	167.93	0.90	178.23	70.43
4250.00	4.98	61.57	4239.94	-54.55	60.73	169.80	0.77	180.33	70.32
4275.00	4.86	59.82	4264.84	-55.54	61.78	171.67	0.76	182.45	70.21
4300.00	4.78	56.83	4289.76	-56.57	62.88	173.46	1.05	184.51	70.07
4325.00	4.95	62.10	4314.67	-57.58	63.95	175.28	1.90	186.59	69.96
4350.00	5.15	62.34	4339.57	-58.54	64.98	177.23	0.83	188.77	69.87
4375.00	5.04	59.20	4364.47	-59.55	66.06	179.17	1.20	190.96	69.76
4400.00	5.20	57.83	4389.37	-60.64	67.23	181.07	0.81	193.15	69.63
4425.00	5.07	62.61	4414.27	-61.68	68.34	183.01	1.79	195.35	69.52
4450.00	5.38	62.32	4439.17	-62.66	69.39	185.03	1.27	197.61	69.44
4475.00	4.88	62.60	4464.07	-63.63	70.43	187.01	2.04	199.83	69.36
4500.00	4.18	64.96	4488.99	-64.44	71.30	188.78	2.89	201.80	69.31
4525.00	3.77	65.89	4513.93	-65.10	72.02	190.36	1.64	203.53	69.28
4550.00	4.23	65.13	4538.87	-65.77	72.75	191.94	1.83	205.27	69.24
4575.00	4.03	63.22	4563.80	-66.49	73.53	193.56	0.95	207.06	69.20
4600.00	3.91	66.05	4588.74	-67.18	74.27	195.13	0.93	208.78	69.16
4625.00	3.88	68.91	4613.68	-67.77	74.92	196.70	0.78	210.48	69.15
4650.00	4.08	65.22	4638.62	-68.39	75.60	198.29	1.28	212.22	69.13
4675.00	3.95	64.02	4663.56	-69.08	76.35	199.88	0.60	213.96	69.09
4700.00	3.91	66.47	4688.50	-69.74	77.07	201.43	0.69	215.67	69.06
4725.00	3.87	64.70	4713.45	-70.39	77.77	202.97	0.51	217.36	69.04
4750.00	3.63	64.13	4738.39	-71.04	78.47	204.45	0.96	218.99	69.00
4775.00	3.50	66.61	4763.34	-71.63	79.12	205.86	0.81	220.54	68.98
4800.00	3.36	65.80	4788.30	-72.19	79.72	207.23	0.60	222.03	68.96
4825.00	3.07	69.96	4813.26	-72.67	80.25	208.52	1.48	223.43	68.95
4850.00	3.07	70.81	4838.22	-73.07	80.70	209.78	0.18	224.77	68.96

TVD	INC	AZIM	TVD	VS	IN/S	FE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	/100ft	ft	deg
4875.00	3.28	70.15	4863.19	-73.49	81.17	211.09	0.85	226.16	68.97
4900.00	3.08	65.93	4888.15	-73.96	81.68	212.38	1.24	227.54	68.96
4925.00	2.78	71.41	4913.11	-74.38	82.15	213.56	1.62	228.82	68.96
4950.00	3.05	70.95	4938.08	-74.75	82.56	214.77	1.05	230.09	68.97
4975.00	2.58	66.35	4963.05	-75.15	83.00	215.91	2.06	231.32	68.97
5000.00	2.46	69.69	4988.03	-75.53	83.42	216.93	0.76	232.42	68.97
5025.00	2.73	70.44	5013.00	-75.87	83.80	217.99	1.07	233.55	68.97
5050.00	3.51	74.99	5037.97	-76.22	84.20	219.29	3.26	234.90	69.00
5075.00	3.56	69.14	5062.92	-76.64	84.67	220.76	1.46	236.44	69.02
5100.00	3.51	69.29	5087.87	-77.14	85.22	222.20	0.22	237.98	69.02
5125.00	3.52	70.87	5112.82	-77.61	85.74	223.64	0.39	239.51	69.02
5150.00	3.68	74.02	5137.77	-78.03	86.21	225.13	1.02	241.08	69.05
5175.00	3.65	68.09	5162.72	-78.49	86.73	226.64	1.52	242.67	69.06
5200.00	3.66	69.01	5187.67	-79.02	87.31	228.13	0.23	244.26	69.06
5225.00	3.59	72.18	5212.62	-79.49	87.84	229.61	0.85	245.84	69.07
5250.00	3.65	72.12	5237.57	-79.92	88.32	231.12	0.27	247.42	69.09
5275.00	3.79	70.08	5262.52	-80.39	88.85	232.65	0.77	249.04	69.10
5300.00	3.40	69.27	5287.47	-80.88	89.39	234.12	1.57	250.61	69.10
5325.00	3.38	70.52	5312.43	-81.34	89.90	235.51	0.31	252.09	69.11
5350.00	3.42	70.56	5337.38	-81.78	90.40	236.91	0.19	253.57	69.12
5375.00	3.39	68.03	5362.34	-82.25	90.92	238.30	0.62	255.06	69.12
5400.00	3.07	75.37	5387.30	-82.65	91.37	239.64	2.08	256.46	69.13
5425.00	3.14	68.46	5412.26	-83.02	91.79	240.92	1.52	257.81	69.14
5450.00	3.18	70.28	5437.22	-83.46	92.27	242.21	0.43	259.19	69.15
5475.00	3.34	75.01	5462.18	-83.84	92.69	243.57	1.26	260.61	69.16
5500.00	3.40	71.30	5487.14	-84.21	93.12	244.97	0.90	262.08	69.19
5525.00	3.35	72.13	5512.10	-84.62	93.58	246.37	0.29	263.55	69.20
5550.00	3.21	71.85	5537.06	-85.02	94.03	247.73	0.55	264.98	69.22
5575.00	3.28	72.39	5562.02	-85.40	94.46	249.08	0.27	266.39	69.23
5600.00	3.17	75.31	5586.98	-85.74	94.85	250.43	0.78	267.79	69.26
5625.00	3.24	77.27	5611.94	-86.03	95.18	251.79	0.52	269.18	69.29
5650.00	3.15	74.27	5636.90	-86.32	95.52	253.14	0.77	270.56	69.33

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	3.14	69.45	5661.86	-86.70	95.95	254.44	1.06	271.93	69.34
5700.00	3.65	65.97	5686.82	-87.21	96.51	255.81	2.19	273.41	69.33
5725.00	3.98	70.90	5711.76	-87.76	97.12	257.35	1.85	275.07	69.32
5750.00	4.10	67.27	5736.70	-88.33	97.75	259.00	1.14	276.83	69.32
5775.00	3.99	64.39	5761.64	-88.99	98.47	260.60	0.93	278.59	69.30
5800.00	3.96	64.99	5786.58	-89.68	99.21	262.17	0.21	280.31	69.27
5825.00	3.74	68.19	5811.52	-90.29	99.88	263.71	1.22	281.99	69.26
5850.00	3.67	69.47	5836.47	-90.82	100.46	265.21	0.43	283.60	69.25
5875.00	3.69	69.91	5861.42	-91.32	101.02	266.72	0.12	285.21	69.26
5900.00	3.74	71.04	5886.36	-91.81	101.56	268.24	0.37	286.83	69.26
5925.00	3.36	69.19	5911.32	-92.28	102.09	269.70	1.60	288.37	69.27
5950.00	2.98	71.84	5936.28	-92.69	102.55	271.00	1.62	289.75	69.27
5975.00	2.96	75.13	5961.24	-93.02	102.92	272.24	0.68	291.05	69.29
6000.00	2.98	71.17	5986.21	-93.35	103.29	273.48	0.83	292.34	69.31
6025.00	2.82	71.95	6011.18	-93.70	103.69	274.69	0.66	293.61	69.32
6050.00	2.94	78.16	6036.15	-93.98	104.02	275.90	1.33	294.85	69.34
6075.00	3.20	74.31	6061.11	-94.26	104.34	277.20	1.34	296.18	69.37
6100.00	2.97	72.37	6086.08	-94.59	104.72	278.48	1.00	297.52	69.39
6125.00	2.98	75.71	6111.04	-94.91	105.08	279.73	0.69	298.82	69.41
6150.00	3.34	66.93	6136.00	-95.30	105.52	281.03	2.42	300.19	69.42
6175.00	3.35	61.82	6160.96	-95.89	106.15	282.35	1.19	301.64	69.40
6200.00	3.38	60.19	6185.92	-96.55	106.87	283.63	0.40	303.09	69.35
6225.00	3.58	64.64	6210.87	-97.20	107.57	284.97	1.35	304.60	69.32
6250.00	4.03	59.30	6235.82	-97.93	108.35	286.43	2.30	306.24	69.28
6275.00	4.00	56.69	6260.76	-98.81	109.28	287.92	0.75	307.96	69.22
6300.00	4.01	56.42	6285.69	-99.72	110.24	289.38	0.09	309.66	69.15
6325.00	4.12	57.08	6310.63	-100.63	111.21	290.86	0.48	311.39	69.08
6350.00	3.89	48.95	6335.57	-101.63	112.26	292.25	2.45	313.07	68.99
6375.00	3.46	44.61	6360.52	-102.68	113.35	293.42	2.04	314.55	68.88
6400.00	3.21	43.96	6385.48	-103.68	114.39	294.44	1.04	315.88	68.77
6425.00	3.35	44.96	6410.44	-104.66	115.41	295.44	0.63	317.18	68.66
6450.00	3.74	45.10	6435.39	-105.72	116.50	296.53	1.54	318.60	68.55

MD	INC	AZIM	TVL	VS	IN/S	HE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
6475.00	3.79	41.82	6460.33	-106.87	117.70	297.66	0.89	320.08	68.43
6500.00	3.41	36.06	6485.28	-108.05	118.91	298.65	2.11	321.45	68.29
6525.00	2.86	29.79	6510.25	-109.16	120.06	299.40	2.58	322.57	68.15
6550.00	2.56	27.19	6535.22	-110.18	121.10	299.96	1.30	323.48	68.02
6575.00	2.54	21.92	6560.19	-111.18	122.11	300.43	0.94	324.29	67.88
6600.00	2.60	14.77	6585.17	-112.23	123.17	300.78	1.31	325.02	67.73
6625.00	2.30	19.80	6610.15	-113.23	124.19	301.09	1.47	325.70	67.59
6650.00	2.30	35.31	6635.13	-114.10	125.07	301.55	2.49	326.46	67.47
6675.00	2.39	37.12	6660.11	-114.90	125.90	302.16	0.46	327.34	67.38
6700.00	2.05	47.18	6685.09	-115.60	126.62	302.80	2.06	328.21	67.31
6725.00	1.66	66.39	6710.07	-116.03	127.07	303.46	2.93	328.99	67.28
6750.00	1.74	97.59	6735.06	-116.09	127.16	304.17	3.67	329.68	67.31
6775.00	1.87	94.04	6760.05	-115.99	127.08	304.95	0.67	330.37	67.38
6800.00	1.75	95.09	6785.04	-115.90	127.02	305.74	0.49	331.07	67.44
6825.00	1.83	100.41	6810.03	-115.76	126.92	306.51	0.74	331.75	67.51
6850.00	2.21	101.08	6835.01	-115.57	126.75	307.38	1.52	332.49	67.59
6875.00	2.51	98.29	6859.99	-115.36	126.58	308.39	1.26	333.36	67.68
6900.00	2.57	94.04	6884.97	-115.20	126.46	309.49	0.80	334.33	67.77
6925.00	3.05	93.33	6909.94	-115.08	126.38	310.72	1.92	335.44	67.87
6950.00	3.50	93.82	6934.89	-114.94	126.29	312.14	1.79	336.72	67.97
6975.00	3.82	91.70	6959.84	-114.80	126.22	313.74	1.41	338.17	68.08
7000.00	3.70	88.40	6984.79	-114.74	126.22	315.38	0.99	339.70	68.19
7025.00	4.10	88.86	7009.73	-114.72	126.26	317.08	1.57	341.29	68.29
7050.00	4.38	87.63	7034.66	-114.71	126.31	318.92	1.19	343.03	68.39
7075.00	4.60	82.20	7059.59	-114.82	126.49	320.87	1.92	344.90	68.49
7100.00	4.93	73.16	7084.50	-115.19	126.94	322.89	3.27	346.95	68.54
7125.00	4.71	71.17	7109.41	-115.76	127.58	324.89	1.11	349.04	68.56
7150.00	5.04	69.38	7134.32	-116.41	128.30	326.89	1.46	351.16	68.57
7175.00	4.58	67.11	7159.23	-117.11	129.07	328.84	1.99	353.26	68.57
7200.00	4.10	66.33	7184.16	-117.79	129.82	330.57	1.92	355.15	68.56
7225.00	3.91	64.33	7209.10	-118.46	130.55	332.16	0.94	356.89	68.54
7250.00	3.66	63.10	7234.05	-119.14	131.28	333.64	1.07	358.54	68.52

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
7275.00	3.83	64.29	7258.99	-119.81	132.00	335.10	0.76	360.16	68.50
7300.00	4.18	63.19	7283.93	-120.53	132.77	336.67	1.45	361.90	68.48
7325.00	4.35	62.78	7308.86	-121.31	133.62	338.33	0.68	363.75	68.45
7331.00	4.29	62.97	7314.85	-121.50	133.82	338.73	1.00	364.20	68.44