

Results of Directional Survey

API number:	30-025-40163		
OGRID:		Operator:	COG OPERATING LLC
		Property:	MAGNUM PRONTO STATE COM # 5H

surface	ULSTR:	O	32	T 19S	R 32E
				330 FSL	2260 FEL

BH Loc	ULSTR:	B	32	T 19S	R 32E
13755 MD		9331.1	TVD	4962 FSL	2307 FEL
				318 FNL	

Top Perf/OH	ULSTR:	O	32	T 19S	R 32E
9550 MD		9358.6	TVD	762 FSL	2194 FEL

Bot Perf/OH	ULSTR:	B	32	T 19S	R 32E
13693 MD		9331.6	TVD	4900 FSL	2302 FEL
				380 FNL	

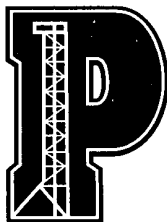
	MD	N/S	E/W	VD
	9528	410.66	65.28	9352.88
TOP PERFS/OH	9550	431.91	65.68	9358.55
	9560	441.57	65.86	9361.13
	13569	4446.88	-30.50	9332.63
BOT PERFS/OH	13693	4570.37	-41.56	9331.59
	13664	4541.49	-38.97	9331.83

NEXT TO LAST	13569	4446.88	-30.50	9332.63
LAST READING	13664	4541.49	-38.97	9331.83
TD	13755	4632.12	-47.08	9331.06

Surface Location	330 FS	2260 FE
Projected BHL	4962 FS	2307 FE
Location of		
Top Perfs/OH	762 FS	2194 FE
Bottom Perfs/OH	4900 FS	2302 FE

SUMMARY of Subsurface Locations

Surface Location	O-32-19S-32E	330 FS	2260 FE	Vert. Depth
Top Perfs/OH	O-32-19S-32E	762 FS	2194 FE	9358.55
Bottom Perfs/OH	B-32-19S-32E	4900 FS	2302 FE	9331.59
Projected TD	B-32-19S-32E	4962 FS	2307 FE	9331.06



PATRIOT DRILLING, LLC

SUR: O-32-19s-32e, 330/S & 2260/E
BHL: B-332-19s-32e, 4962/S & 2307/E
API # 30-025-40163

OPERATOR: COG Opertaing, LLC.
WELL/LEASE: Magnum Pronto 32 State Com # 5-l
COUNTY: Lea Co., New Mexico
Sec. 32, T19S, R32E

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
208	1/2	4,580	3/4
754	1 1/2	4,808	1/2
1,034	1 1/4	5,117	1 1/2
1,215	1 2/5	5,493	1 1/4
1,375	1 3/4	5,874	1
1,734	1	6,575	3/4
1,853	1 1/4	6,949	1 1/4
2,043	2 1/2	7,356	1 3/4
2,140	2	7,710	3/4
2,236	2	8,059	2 1/4
2,333	2 1/4	8,279	1 3/4
2,429	2 1/4	8,758	1 3/4
2,584	2 1/4	9,041	1 3/4
2,715	3	9,139	1 1/2
3,936	1 3/4	9,428	1
4,185	1 1/2		

HOBBS OCD

OCT 20 2011

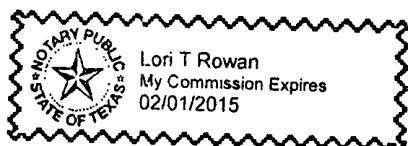
RECEIVED

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 26th day of July, 2011
by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015



Lori T. Rowan
Notary Public for Ector Co., Texas

SUR: O-32-19s-32e, 330/S & 2260/E
BHL: B-332-19s-32e, 4962/S & 2307/E
API # 30-025-40163



Scientific Drilling

HOBBS OCD

OCT 20 2011

RECEIVED

Gyroscopic Survey Report
for
COG

Well Location	LEA COUNTY, NEW MEXICO
Well Name	MAGNUM PRONTO 32 STATE COM #5H
Rig Name	PATRIOT 6
Survey Date	7/10/2011
Latitude	32.61 deg
North Reference	Grid North
Grid Correction	-0.29 deg
Depth Reference	RKB
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 359.92Azim (deg)
Definitive Survey	None
Operator	FRANK RENTERIA

Comments

17 FOOT KB



Survey Report

Well Name: MAGNUM PRONTO 32 STATE COM

Survey: FINAL GYRO SURVEY

Survey Date: 7/10/2011

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.51	344.47	100.00	0.43	0.43	-0.12	0.51	0.45	344.47
200.00	0.44	0.74	200.00	1.25	1.25	-0.24	0.16	1.27	349.30
300.00	0.45	349.32	299.99	2.01	2.01	-0.30	0.09	2.03	351.44
400.00	0.60	6.49	399.99	2.91	2.91	-0.32	0.22	2.93	353.81
500.00	0.70	12.50	499.98	4.03	4.03	-0.12	0.12	4.03	358.23
600.00	0.93	350.92	599.97	5.43	5.43	-0.12	0.38	5.43	358.73
700.00	1.38	349.29	699.95	7.42	7.42	-0.47	0.45	7.44	356.35
800.00	1.41	347.54	799.92	9.81	9.81	-0.96	0.05	9.86	354.39
900.00	1.25	354.32	899.89	12.10	12.10	-1.34	0.23	12.17	353.69
1000.00	1.31	355.44	999.87	14.32	14.32	-1.54	0.07	14.40	353.88
1100.00	1.24	50.83	1099.85	16.14	16.13	-0.79	1.18	16.15	357.20
1200.00	1.59	51.61	1199.82	17.67	17.68	1.13	0.35	17.71	3.67
1300.00	1.67	63.42	1299.78	19.18	19.19	3.52	0.35	19.51	10.41
1400.00	1.49	70.20	1399.74	20.28	20.28	6.06	0.26	21.17	16.63
1500.00	1.28	76.86	1499.71	20.97	20.98	8.37	0.27	22.59	21.75
1600.00	1.16	80.65	1599.69	21.38	21.40	10.46	0.14	23.82	26.06
1700.00	1.21	84.78	1699.67	21.64	21.66	12.52	0.10	25.02	30.02
1800.00	1.42	84.13	1799.64	21.86	21.88	14.80	0.21	26.42	34.07
1900.00	1.65	83.63	1899.60	22.14	22.17	17.46	0.23	28.22	38.23
2000.00	2.08	79.10	1999.55	22.64	22.67	20.67	0.46	30.68	42.36
2100.00	1.99	76.27	2099.49	23.39	23.43	24.14	0.13	33.64	45.86
2200.00	2.03	78.27	2199.43	24.16	24.20	27.56	0.08	36.68	48.72
2300.00	2.44	84.39	2299.35	24.72	24.77	31.41	0.48	40.00	51.75
2400.00	1.88	88.73	2399.28	24.96	25.01	35.17	0.59	43.16	54.58
2500.00	1.97	105.24	2499.22	24.54	24.60	38.46	0.56	45.66	57.40
2600.00	2.17	118.87	2599.16	23.17	23.23	41.78	0.53	47.80	60.92
2700.00	2.13	129.58	2699.09	21.07	21.13	44.87	0.40	49.60	64.79
2800.00	1.84	127.73	2799.03	18.89	18.96	47.58	0.30	51.22	68.27
2900.00	1.60	117.65	2898.98	17.26	17.33	50.09	0.38	53.00	70.92
3000.00	1.67	129.97	2998.94	15.67	15.74	52.44	0.36	54.76	73.29
3100.00	0.99	138.85	3098.92	14.08	14.15	54.13	0.71	55.95	75.35
3200.00	0.77	200.78	3198.91	12.80	12.87	54.46	0.93	55.96	76.70
3300.00	1.19	219.98	3298.89	11.37	11.44	53.55	0.53	54.76	77.94
3400.00	2.00	254.31	3398.85	10.10	10.17	51.20	1.22	52.20	78.76
3500.00	2.89	237.31	3498.76	8.27	8.34	47.40	1.14	48.13	80.02
3600.00	3.03	236.19	3598.63	5.45	5.51	43.09	0.15	43.44	82.71
3700.00	2.99	244.33	3698.49	2.86	2.91	38.54	0.43	38.65	85.68
3800.00	2.35	257.52	3798.38	1.29	1.34	34.18	0.88	34.21	87.76



Survey Report

Well Name: MAGNUM PRONTO 32 STATE COM

Survey: FINAL GYRO SURVEY

Survey Date: 7/10/2011

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
3900.00	1.81	265.47	3898.32	0.72	0.77	30.61	0.62	30.62	88.56
4000.00	1.58	263.17	3998.27	0.44	0.48	27.67	0.23	27.67	89.01
4100.00	1.25	270.30	4098.24	0.29	0.32	25.21	0.38	25.21	89.27
4200.00	1.10	272.81	4198.22	0.34	0.37	23.15	0.15	23.16	89.08
4300.00	0.95	274.03	4298.21	0.45	0.48	21.36	0.16	21.37	88.72
4400.00	0.88	275.37	4398.19	0.58	0.61	19.77	0.08	19.78	88.24
4500.00	0.48	230.80	4498.19	0.39	0.42	18.69	0.63	18.69	88.72
4600.00	0.48	171.41	4598.18	-0.28	-0.26	18.43	0.47	18.43	90.80
4700.00	0.13	218.53	4698.18	-0.79	-0.76	18.42	0.40	18.44	92.36
4800.00	0.13	273.89	4798.18	-0.87	-0.84	18.24	0.12	18.26	92.65
4900.00	0.18	282.55	4898.18	-0.83	-0.80	17.97	0.06	17.99	92.55
5000.00	0.24	309.78	4998.18	-0.66	-0.63	17.66	0.11	17.67	92.06
5100.00	0.34	311.54	5098.18	-0.33	-0.30	17.28	0.10	17.28	91.01
5200.00	0.27	298.06	5198.18	-0.02	0.01	16.84	0.10	16.84	89.98
5300.00	0.32	294.71	5298.18	0.21	0.23	16.38	0.04	16.38	89.18
5400.00	0.36	305.57	5398.17	0.51	0.53	15.87	0.08	15.88	88.08
5500.00	0.50	325.10	5498.17	1.05	1.07	15.37	0.20	15.41	86.02
5600.00	0.57	333.75	5598.17	1.85	1.87	14.90	0.11	15.02	82.86
5700.00	0.53	346.79	5698.16	2.74	2.76	14.58	0.13	14.84	79.29
5800.00	0.30	15.06	5798.16	3.44	3.46	14.54	0.30	14.95	76.61
5900.00	0.23	26.77	5898.16	3.88	3.90	14.71	0.09	15.21	75.14
6000.00	0.20	29.03	5998.16	4.21	4.23	14.88	0.04	15.47	74.12
6100.00	0.37	37.62	6098.16	4.62	4.64	15.16	0.18	15.86	72.98
6200.00	0.28	37.95	6198.16	5.07	5.09	15.51	0.10	16.32	71.83
6300.00	0.38	18.46	6298.15	5.57	5.59	15.76	0.15	16.73	70.46
6400.00	0.37	36.71	6398.15	6.14	6.16	16.06	0.12	17.20	69.00
6500.00	0.33	14.82	6498.15	6.68	6.70	16.32	0.14	17.64	67.69
6600.00	0.40	15.12	6598.15	7.29	7.31	16.49	0.06	18.03	66.09
6700.00	0.31	10.93	6698.15	7.89	7.91	16.63	0.08	18.41	64.55
6800.00	0.42	13.03	6798.14	8.52	8.54	16.76	0.11	18.81	63.00
6900.00	0.35	4.48	6898.14	9.18	9.20	16.87	0.09	19.22	61.38
7000.00	0.55	359.34	6998.14	9.96	9.99	16.89	0.20	19.62	59.40
7100.00	0.46	33.86	7098.14	10.77	10.80	17.11	0.31	20.23	57.74
7200.00	0.75	17.98	7198.13	11.73	11.75	17.53	0.33	21.11	56.16
7300.00	0.96	17.48	7298.12	13.15	13.18	17.99	0.22	22.30	53.78
7400.00	1.35	24.66	7398.10	15.02	15.05	18.73	0.41	24.03	51.22
7500.00	1.68	42.00	7498.06	17.17	17.20	20.20	0.56	26.53	49.58
7600.00	1.40	55.94	7598.03	18.94	18.97	22.19	0.46	29.20	49.47



Survey Report

Well Name: MAGNUM PRONTO 32 STATE COM

Survey: FINAL GYRO SURVEY

Survey Date: 7/10/2011

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
7700.00	1.58	61.92	7697.99	20.27	20.31	24.42	0.23	31.76	50.25
7800.00	1.65	63.87	7797.95	21.55	21.59	26.92	0.09	34.51	51.28
7900.00	2.33	70.49	7897.89	22.86	22.90	30.13	0.72	37.84	52.76
8000.00	2.66	78.82	7997.80	23.98	24.03	34.32	0.49	41.89	55.01
8100.00	2.70	83.34	8097.69	24.70	24.75	38.94	0.21	46.14	57.56
8200.00	2.43	86.43	8197.59	25.09	25.15	43.39	0.30	50.15	59.90
8300.00	2.38	80.69	8297.50	25.56	25.62	47.55	0.25	54.02	61.68
8400.00	2.14	75.18	8397.42	26.36	26.44	51.41	0.32	57.81	62.79
8500.00	2.29	75.84	8497.35	27.32	27.40	55.15	0.15	61.58	63.58
8600.00	2.40	75.48	8597.27	28.33	28.41	59.11	0.12	65.58	64.33
8700.00	2.49	77.24	8697.17	29.33	29.42	63.25	0.12	69.76	65.06
8800.00	2.39	83.44	8797.08	30.04	30.14	67.45	0.28	73.87	65.92
8900.00	2.16	87.32	8897.01	30.36	30.46	71.40	0.28	77.63	66.89
9000.00	1.40	99.24	8996.96	30.25	30.36	74.49	0.84	80.44	67.83
9100.00	1.16	131.16	9096.93	29.39	29.50	76.45	0.74	81.94	68.90
9200.00	0.72	150.62	9196.92	28.18	28.29	77.52	0.54	82.52	69.95
9300.00	0.39	215.54	9296.92	27.36	27.46	77.62	0.66	82.34	70.52
9400.00	0.38	246.87	9396.91	26.95	27.05	77.12	0.21	81.73	70.67
9500.00	0.51	187.16	9496.91	26.37	26.48	76.76	0.46	81.20	70.97
9600.00	0.27	171.97	9596.91	25.70	25.80	76.74	0.26	80.96	71.41

PathFinder Energy Services, Inc.

Survey Report

Page 01/03
Tie-in Date: 07/11/2011
Date Completed: 07/22/2011

COG OPERATING L.L.C
MAGNUM PRONTO STATE COM #5H
LEA COUNTY COUNTY, NEW MEXICO
Rig:PATRIOT #6
PathFinder Office Supervisor: F. SINISTERRA
PathFinder Field Engineers: C. HARDY
K. THURMAN
P.DAS

Survey Calculations by RX5 V6.03E using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.36.37.4293 N LON:103.47.11.8400 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 668346.3000 Y: 586206.8000
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.41° EAST TO GRID
Vertical Section Plane: 359.92
Survey Vert. Reference: 18.00' Kelly Bushing To Ground
Altitude:3531.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
TIED INTO SCIENTIFIC GYRO SURVEY @ 8800' MD.								
8800.00	2.39	83.44	8797.08	0.00	30.05	30.14 N 67.45 E	73.88@ 65.92	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.								
8861.00	2.11	77.72	8858.03	61.00	30.43	30.52 N 69.81 E	76.19@ 66.38	0.59
8891.00	2.55	49.60	8888.01	30.00	30.98	31.07 N 70.86 E	77.37@ 66.32	4.03
8912.00	4.92	15.41	8908.97	21.00	32.15	32.25 N 71.45 E	78.39@ 65.71	15.02
8956.00	12.22	0.03	8952.45	44.00	38.63	38.73 N 71.96 E	81.72@ 61.71	17.24
8987.00	16.18	355.02	8982.50	31.00	46.22	46.32 N 71.59 E	85.26@ 57.10	13.36
9019.00	18.99	352.64	9013.00	32.00	55.83	55.92 N 70.53 E	90.01@ 51.59	9.06
9051.00	23.21	354.84	9042.85	32.00	67.28	67.37 N 69.30 E	96.65@ 45.81	13.42
9083.00	27.35	356.86	9071.78	32.00	80.90	81.00 N 68.33 E	105.97@ 40.15	13.21
9115.00	30.78	358.45	9099.74	32.00	96.43	96.53 N 67.70 E	117.90@ 35.04	10.99
9146.00	34.47	359.15	9125.85	31.00	113.14	113.24 N 67.36 E	131.75@ 30.75	11.96
9178.00	37.46	358.09	9151.75	32.00	131.93	132.02 N 66.90 E	148.00@ 26.87	9.54
9210.00	40.10	358.01	9176.69	32.00	151.96	152.05 N 66.22 E	165.84@ 23.53	8.25
9242.00	40.80	357.30	9201.04	32.00	172.70	172.79 N 65.37 E	184.74@ 20.72	2.62
9274.00	43.88	357.65	9224.69	32.00	194.23	194.32 N 64.42 E	204.72@ 18.34	9.65
9305.00	48.63	358.36	9246.12	31.00	216.61	216.70 N 63.64 E	225.85@ 16.37	15.41
9337.00	53.20	358.36	9266.29	32.00	241.43	241.52 N 62.93 E	249.58@ 14.60	14.28
9369.00	56.54	359.41	9284.70	32.00	267.59	267.68 N 62.43 E	274.87@ 13.13	10.78
9401.00	59.53	0.64	9301.64	32.00	294.74	294.83 N 62.45 E	301.37@ 11.96	9.90
9432.00	62.52	1.79	9316.66	31.00	321.85	321.94 N 63.02 E	328.05@ 11.08	10.18
9464.00	66.04	1.43	9330.54	32.00	350.66	350.75 N 63.83 E	356.51@ 10.31	11.05
9496.00	69.47	1.52	9342.65	32.00	380.26	380.35 N 64.60 E	385.80@ 9.64	10.72
9528.00	73.25	1.08	9352.88	32.00	410.57	410.66 N 65.28 E	415.82@ 9.03	11.88
9560.00	76.85	1.08	9361.13	32.00	441.48	441.57 N 65.86 E	446.45@ 8.48	11.25

SUR: O-32-19s-32e, 330/S & 2260/E
BHL: B-332-19s-32e, 4962/S & 2307/E
API # 30-025-40163

PathFinder Energy Services, Inc.

Survey Report

COG OPERATING L.L.C
MAGNUM PRONTO STATE COM #5H
LEA COUNTY COUNTY, NEW MEXICO
RIG:PATRIOT #6

Page 02/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
9592.00	80.55	0.99	9367.40	32.00	472.84	472.94 N	66.43 E	477.58@	8.00	11.57
9617.00	83.10	0.73	9370.96	25.00	497.58	497.68 N	66.80 E	502.14@	7.65	10.25
9658.00	87.58	0.20	9374.29	41.00	538.44	538.53 N	67.13 E	542.70@	7.11	11.00
9722.00	89.34	0.29	9376.01	64.00	602.41	602.50 N	67.41 E	606.26@	6.38	2.75
9785.00	90.31	0.38	9376.20	63.00	665.41	665.50 N	67.78 E	668.94@	5.82	1.55
9849.00	90.22	359.24	9375.90	64.00	729.40	729.50 N	67.56 E	732.62@	5.29	1.79
9944.00	91.01	359.24	9374.88	95.00	824.39	824.49 N	66.30 E	827.15@	4.60	0.83
10040.00	90.57	358.53	9373.56	96.00	920.37	920.46 N	64.44 E	922.71@	4.00	0.87
10135.00	91.63	358.09	9371.74	95.00	1015.31	1015.40 N	61.63 E	1017.27@	3.47	1.21
10230.00	91.80	357.30	9368.89	95.00	1110.20	1110.28 N	57.81 E	1111.78@	2.98	0.85
10326.00	91.45	358.18	9366.17	96.00	1206.09	1206.16 N	54.03 E	1207.37@	2.56	0.99
10421.00	92.24	357.04	9363.11	95.00	1300.96	1301.03 N	50.07 E	1301.99@	2.20	1.46
10517.00	91.01	357.39	9360.39	96.00	1396.81	1396.87 N	45.41 E	1397.61@	1.86	1.33
10612.00	89.43	358.71	9360.03	95.00	1491.75	1491.81 N	42.18 E	1492.41@	1.62	2.17
10708.00	91.63	359.85	9359.14	96.00	1587.74	1587.79 N	40.97 E	1588.32@	1.48	2.58
10803.00	92.07	358.71	9356.07	95.00	1682.68	1682.74 N	39.78 E	1683.21@	1.35	1.29
10898.00	91.80	358.80	9352.86	95.00	1777.60	1777.66 N	37.71 E	1778.06@	1.22	0.30
10994.00	90.84	0.56	9350.65	96.00	1873.57	1873.63 N	37.18 E	1874.00@	1.14	2.09
11089.00	91.54	359.94	9348.68	95.00	1968.55	1968.60 N	37.59 E	1968.96@	1.09	0.98
11185.00	91.71	358.89	9345.96	96.00	2064.51	2064.56 N	36.61 E	2064.88@	1.02	1.11
11280.00	90.40	358.71	9344.21	95.00	2159.47	2159.52 N	34.62 E	2159.80@	0.92	1.39
11376.00	91.01	357.92	9343.03	96.00	2255.42	2255.47 N	31.80 E	2255.69@	0.81	1.04
11471.00	90.75	359.50	9341.57	95.00	2350.39	2350.43 N	29.66 E	2350.62@	0.72	1.69
11566.00	91.19	358.09	9339.96	95.00	2445.35	2445.40 N	27.67 E	2445.55@	0.65	1.55
11662.00	91.63	357.21	9337.60	96.00	2541.25	2541.28 N	23.73 E	2541.40@	0.54	1.03
11757.00	91.36	358.09	9335.12	95.00	2636.14	2636.17 N	19.84 E	2636.25@	0.43	0.97
11852.00	90.48	359.50	9333.59	95.00	2731.11	2731.13 N	17.84 E	2731.19@	0.37	1.75
11948.00	90.92	358.71	9332.42	96.00	2827.09	2827.11 N	16.34 E	2827.16@	0.33	0.94

PathFinder Energy Services, Inc.

Survey Report

COG OPERATING L.L.C
MAGNUM PRONTO STATE COM #5H
LEA COUNTY COUNTY, NEW MEXICO
RIG:PATRIOT #6

Page 03/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
12043.00	90.84	359.24	9330.96	95.00	2922.06	2922.09 N	14.64 E	2922.12@	0.29	0.56
12138.00	91.36	358.62	9329.14	95.00	3017.03	3017.05 N	12.87 E	3017.08@	0.24	0.85
12234.00	90.40	359.68	9327.66	96.00	3113.01	3113.03 N	11.44 E	3113.05@	0.21	1.49
12330.00	88.29	0.12	9328.76	96.00	3209.00	3209.02 N	11.28 E	3209.04@	0.20	2.25
12425.00	87.67	359.76	9332.11	95.00	3303.94	3303.96 N	11.18 E	3303.98@	0.19	0.75
12520.00	87.67	0.12	9335.97	95.00	3398.86	3398.88 N	11.08 E	3398.90@	0.19	0.38
12616.00	90.57	358.27	9337.44	96.00	3494.83	3494.84 N	9.73 E	3494.86@	0.16	3.58
12711.00	90.04	358.09	9336.94	95.00	3589.78	3589.79 N	6.71 E	3589.80@	0.11	0.59
12806.00	89.08	358.36	9337.67	95.00	3684.73	3684.74 N	3.77 E	3684.75@	0.06	1.05
12902.00	90.92	358.71	9337.67	96.00	3780.70	3780.71 N	1.31 E	3780.71@	0.02	1.95
12997.00	90.22	357.83	9336.72	95.00	3875.66	3875.66 N	1.55 W	3875.66@	359.98	1.18
13093.00	90.31	356.69	9336.28	96.00	3971.55	3971.55 N	6.14 W	3971.55@	359.91	1.19
13188.00	90.57	358.09	9335.55	95.00	4066.45	4066.44 N	10.47 W	4066.46@	359.85	1.50
13283.00	90.48	357.57	9334.68	95.00	4161.39	4161.37 N	14.07 W	4161.39@	359.81	0.56
13379.00	90.48	356.95	9333.88	96.00	4257.28	4257.26 N	18.65 W	4257.30@	359.75	0.65
13474.00	90.31	356.69	9333.22	95.00	4352.14	4352.11 N	23.92 W	4352.17@	359.69	0.33
13569.00	90.40	355.37	9332.63	95.00	4446.91	4446.88 N	30.50 W	4446.98@	359.61	1.39
13664.00	90.57	354.40	9331.83	95.00	4541.54	4541.49 N	38.97 W	4541.66@	359.51	1.04
STRAIGHT-LINE PROJECTION TO BIT @ 13755' MD.										
13755.00	90.57	354.40	9330.92	91.00	4632.12	4632.05 N	47.85 W	4632.30@	359.41	0.00