

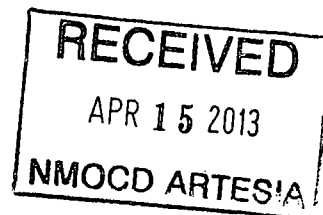
PATRIOT DRILLING, LLC

15-40933

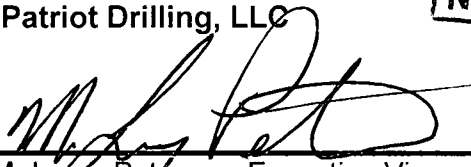
OPERATOR: COG Operating, LLC
WELL/LEASE: Salada Vista 36 # 4 H
COUNTY: Eddy Co., New Mexico
Sec. 36, T19S, R30E

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
393	1 1/4	3,344	1
725	1	3,641	1/2
1,012	1	3,850	1
1,265	1 3/4	4,305	1 1/4
1,525	2	4,837	1/2
1,743	2	5,337	1/2
1,906	2 1/4	5,871	1
2,147	1 3/4	6,432	1
2,572	1 1/4	6,782	1/2
2,825	1 1/2	7,255	1/2
3,091	1 1/4	7,728	1

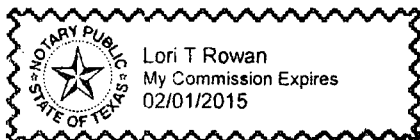


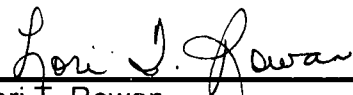
Patriot Drilling, LLC

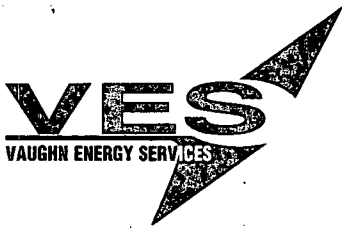

M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 12th day of
February, 2013 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling,

My Commission Expires: 02/01/2015




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

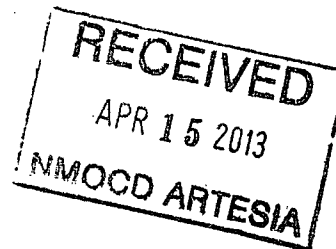


A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

February 12, 2013

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701



Attn: Kanicia Castillo

RE: **Salada Vista 36 State No. 004H**

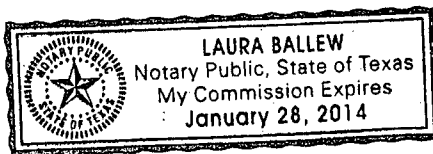
Please find enclosed a copy of the survey from 0.00' to 8143.00' ran on the above referenced well.

Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 12th day of February, A.D., 2013, by Keith Havelka.




Laura Ballew
Notary Public, State of Texas

Company: COG Operating LLC (Concho)
Lease/Well: Salada Vista 36 State / No. 004H



Rig Name: Patriot 6
State/County: New Mexico / Eddy
Latitude: 32.61, Longitude: -103.92
GRID North is 0.22 Degrees East of True North
VS-Azi: 0.00 Degrees



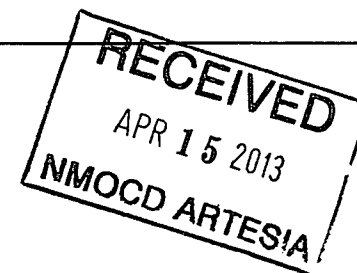
Service Company : RKB = 17'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 2/12/2013 / 09:06

Vaughn Energy Services
Gardendale, Texas
432-563-5444

Surveyor: Kyle Willis
Salada Vista 36 State No. 004H / API 30-015-40933



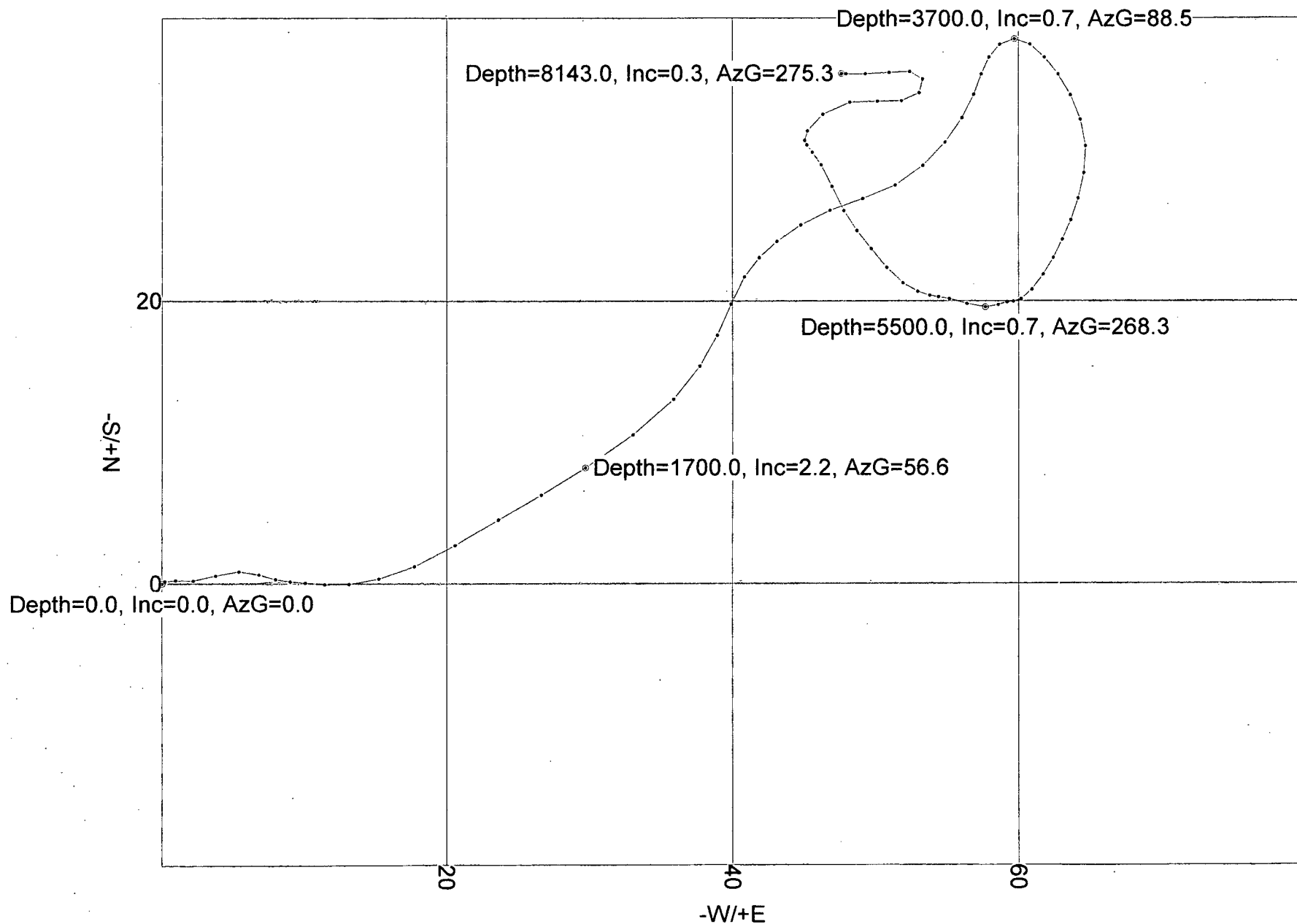
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.30	49.87	100.00	0.17	0.20	0.17	0.27	49.87	0.30
200.00	0.61	99.75	200.00	0.25	0.93	0.25	0.96	74.81	0.47
300.00	0.82	85.26	299.99	0.22	2.16	0.22	2.18	84.16	0.27
400.00	1.03	70.76	399.98	0.58	3.72	0.58	3.76	81.21	0.31
500.00	0.89	90.13	499.96	0.87	5.34	0.87	5.41	80.76	0.35
600.00	0.74	109.51	599.95	0.65	6.72	0.65	6.75	84.47	0.31
700.00	0.65	101.98	699.94	0.32	7.89	0.32	7.90	87.70	0.13
800.00	0.55	94.46	799.94	0.16	8.92	0.16	8.93	88.97	0.12
900.00	0.71	94.74	899.93	0.07	10.02	0.07	10.02	89.59	0.15
1000.00	0.86	95.02	999.92	-0.04	11.38	-0.04	11.38	90.22	0.15
1100.00	1.10	85.12	1099.91	-0.03	13.09	-0.03	13.09	90.12	0.30
1200.00	1.35	75.22	1199.89	0.35	15.19	0.35	15.20	88.66	0.32
1300.00	1.70	67.21	1299.85	1.23	17.69	1.23	17.74	86.03	0.41
1400.00	2.04	59.19	1399.80	2.72	20.59	2.72	20.77	82.49	0.43
1500.00	2.01	59.60	1499.74	4.52	23.64	4.52	24.07	79.18	0.03
1600.00	1.98	60.00	1599.67	6.27	26.65	6.27	27.38	76.76	0.03
1700.00	2.21	56.56	1699.61	8.20	29.76	8.20	30.86	74.60	0.26
1800.00	2.43	53.13	1799.53	10.53	33.06	10.53	34.69	72.33	0.26

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.94	42.39	1899.45	13.05	35.90	13.05	38.20	70.02	0.63
2000.00	1.46	31.64	1999.41	15.39	37.71	15.39	40.72	67.80	0.58
2100.00	1.41	26.41	2099.38	17.57	38.92	17.57	42.70	65.70	0.14
2200.00	1.36	21.18	2199.35	19.77	39.89	19.77	44.52	63.63	0.14
2300.00	1.11	32.26	2299.33	21.70	40.84	21.70	46.25	62.02	0.34
2400.00	0.87	43.33	2399.31	23.07	41.88	23.07	47.81	61.15	0.31
2500.00	1.07	51.26	2499.30	24.20	43.12	24.20	49.45	60.70	0.24
2600.00	1.27	59.19	2599.28	25.35	44.80	25.35	51.48	60.49	0.26
2700.00	1.36	66.52	2699.25	26.39	46.84	26.39	53.76	60.60	0.19
2800.00	1.44	73.85	2799.22	27.22	49.14	27.22	56.17	61.02	0.20
2900.00	1.40	60.76	2899.19	28.16	51.41	28.16	58.62	61.29	0.33
3000.00	1.35	47.68	2999.16	29.55	53.35	29.55	60.98	61.02	0.32
3100.00	1.25	38.42	3099.13	31.20	54.89	31.20	63.14	60.39	0.23
3200.00	1.15	29.17	3199.11	32.93	56.06	32.93	65.01	59.57	0.22
3300.00	0.97	22.96	3299.10	34.58	56.88	34.58	66.57	58.70	0.21
3400.00	0.80	16.75	3399.08	36.03	57.41	36.03	67.78	57.89	0.20
3500.00	0.72	32.63	3499.08	37.22	57.95	37.22	68.87	57.29	0.22
3600.00	0.64	48.50	3599.07	38.12	58.70	38.12	69.99	57.00	0.20
3700.00	0.68	88.48	3699.06	38.51	59.72	38.51	71.05	57.19	0.45
3800.00	0.72	128.47	3799.06	38.13	60.81	38.13	71.77	57.91	0.48
3900.00	0.83	136.65	3899.05	37.21	61.80	37.21	72.14	58.95	0.15
4000.00	0.94	144.83	3999.03	36.01	62.77	36.01	72.36	60.15	0.16
4100.00	1.02	153.49	4099.02	34.55	63.64	34.55	72.41	61.50	0.17
4200.00	1.11	162.14	4199.00	32.82	64.33	32.82	72.22	62.97	0.18
4300.00	1.11	176.31	4298.98	30.93	64.69	30.93	71.71	64.45	0.27
4400.00	1.11	190.47	4398.97	29.02	64.58	29.02	70.80	65.81	0.27
4500.00	0.99	195.84	4498.95	27.24	64.17	27.24	69.71	67.00	0.15
4600.00	0.87	201.20	4598.94	25.70	63.66	25.70	68.65	68.01	0.15
4700.00	0.84	205.01	4698.92	24.33	63.08	24.33	67.61	68.91	0.06
4800.00	0.81	208.82	4798.91	23.05	62.42	23.05	66.54	69.74	0.06
4900.00	0.77	213.67	4898.90	21.86	61.71	21.86	65.47	70.49	0.08
5000.00	0.73	218.51	4998.90	20.81	60.94	20.81	64.39	71.15	0.08
5100.00	0.46	244.64	5098.89	20.13	60.18	20.13	63.45	71.50	0.37
5200.00	0.20	270.76	5198.89	19.96	59.64	19.96	62.89	71.49	0.30
5300.00	0.31	259.00	5298.89	19.91	59.20	19.91	62.46	71.41	0.13
5400.00	0.43	247.24	5398.89	19.72	58.59	19.72	61.82	71.40	0.14
5500.00	0.65	268.31	5498.88	19.56	57.68	19.56	60.91	71.27	0.30
5600.00	0.88	289.37	5598.87	19.79	56.39	19.79	59.76	70.66	0.36
5700.00	0.58	282.00	5698.86	20.15	55.17	20.15	58.74	69.94	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.28	274.64	5798.86	20.28	54.43	20.28	58.09	69.57	0.30
5900.00	0.43	283.66	5898.86	20.39	53.82	20.39	57.55	69.25	0.16
6000.00	0.58	292.68	5998.86	20.67	52.99	20.67	56.88	68.69	0.17
6100.00	0.80	306.10	6098.85	21.27	51.97	21.27	56.15	67.74	0.27
6200.00	1.02	319.53	6198.84	22.36	50.83	22.36	55.53	66.26	0.30
6300.00	0.96	321.21	6298.82	23.68	49.73	23.68	55.08	64.53	0.06
6400.00	0.90	322.89	6398.81	24.96	48.73	24.96	54.75	62.87	0.06
6500.00	1.03	330.24	6498.79	26.37	47.81	26.37	54.60	61.12	0.18
6600.00	1.15	337.59	6598.78	28.08	46.98	28.08	54.73	59.13	0.19
6700.00	0.80	327.95	6698.76	29.60	46.22	29.60	54.89	57.36	0.39
6800.00	0.45	318.31	6798.75	30.49	45.59	30.49	54.85	56.22	0.36
6900.00	0.29	332.19	6898.75	31.01	45.21	31.01	54.82	55.55	0.19
7000.00	0.12	346.08	6998.75	31.34	45.07	31.34	54.89	55.19	0.17
7100.00	0.68	20.49	7098.75	32.00	45.25	32.00	55.42	54.73	0.59
7200.00	1.24	54.91	7198.74	33.18	46.35	33.18	57.00	54.40	0.78
7300.00	1.17	77.12	7298.71	34.03	48.23	34.03	59.03	54.79	0.47
7400.00	1.10	99.34	7398.69	34.11	50.17	34.11	60.67	55.79	0.44
7500.00	0.89	75.58	7498.68	34.14	51.87	34.14	62.10	56.64	0.46
7600.00	0.69	51.83	7598.67	34.71	53.09	34.71	63.43	56.83	0.38
7700.00	0.73	338.95	7698.67	35.67	53.33	35.67	64.16	56.23	0.84
7800.00	0.77	266.06	7798.66	36.21	52.44	36.21	63.73	55.37	0.89
7900.00	0.89	266.99	7898.65	36.13	50.99	36.13	62.49	54.68	0.13
8000.00	1.02	267.92	7998.63	36.05	49.32	36.05	61.09	53.83	0.13
8100.00	0.54	273.08	8098.62	36.05	47.96	36.05	60.00	53.07	0.49
8143.00	0.33	275.30	8141.62	36.07	47.64	36.07	59.75	52.87	0.48



Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Kyle Willis
Salada Vista 36 State No. 004H / API 30-015-40933



VES Survey Date: 02/02/2013



COG Salada Vista 36 State #4H Gyro + MWD 8143ft - 13690ft Survey
Geodetic Report
(Non-Def Survey)



Report Date: February 21, 2013 - 04:09 PM
Client: COG
Field: NM Eddy County (NAD 83)
Structure / Slot: COG Salada Vista 36 State #4H / COG Salada Vista 36 State #4H
Well: COG Salada Vista 36 State #4H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: COG Salada Vista 36 State #4H Gyro + MWD 8143ft - 13690ft
Survey Date: February 03, 2013
Tort / AHD / DDI / ERD Ratio: 160.464 ° / 5296.151 ft / 6.121 / 0.602
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 36' 53.99073", W 103° 54' 59.00349"
Location Grid N/E Y/X: N 587718.620 ftUS, E 669715.340 ftUS
CRS Grid Convergence Angle: 0.2247 °
Grid Scale Factor: 0.99992796

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 269.880 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3417.300 ft above
Seabed / Ground Elevation: 3399.300 ft above
Magnetic Declination: 7.680 °
Total Gravity Field Strength: 999.1973 mgn (9.8 based)
Total Magnetic Field Strength: 48628.936 nT
Magnetic Dip Angle: 60.411 °
Declination Date: February 03, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.2247 °
Total Corr Mag North->Grid North: 7.4557 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	587718.62	669715.34	N 32 36 53.99	W 103 54 59.00
	100.00	0.30	49.87	100.00	-0.20	0.17	0.20	0.30	587718.79	669715.54	N 32 36 53.99	W 103 54 59.00
	200.00	0.61	99.75	200.00	-0.93	0.25	0.92	0.48	587718.87	669716.25	N 32 36 53.99	W 103 54 58.99
	300.00	0.82	85.26	299.99	-2.16	0.22	2.16	0.28	587718.84	669717.50	N 32 36 53.99	W 103 54 58.98
	400.00	1.03	70.76	399.98	-3.73	0.57	3.72	0.31	587719.19	669719.06	N 32 36 54.00	W 103 54 58.96
	500.00	0.89	90.13	499.96	-5.35	0.87	5.35	0.35	587719.49	669720.69	N 32 36 54.00	W 103 54 58.94
	600.00	0.74	109.51	599.95	-6.74	0.65	6.73	0.31	587719.27	669722.07	N 32 36 54.00	W 103 54 58.92
	700.00	0.65	101.98	699.94	-7.90	0.32	7.90	0.13	587718.94	669723.24	N 32 36 53.99	W 103 54 58.91
	800.00	0.55	94.46	799.94	-8.93	0.16	8.93	0.13	587718.78	669724.27	N 32 36 53.99	W 103 54 58.90
	900.00	0.71	94.74	899.93	-10.03	0.07	10.03	0.16	587718.69	669725.37	N 32 36 53.99	W 103 54 58.89
	1000.00	0.86	95.02	999.92	-11.39	-0.05	11.39	0.15	587718.57	669726.73	N 32 36 53.99	W 103 54 58.87
	1100.00	1.10	85.12	1099.91	-13.10	-0.03	13.10	0.29	587718.59	669728.44	N 32 36 53.99	W 103 54 58.85
	1200.00	1.35	75.22	1199.89	-15.19	0.35	15.19	0.33	587718.97	669730.53	N 32 36 53.99	W 103 54 58.83
	1300.00	1.70	67.21	1299.85	-17.70	1.23	17.70	0.41	587719.85	669733.04	N 32 36 54.00	W 103 54 58.80
	1400.00	2.04	59.19	1399.80	-20.60	2.71	20.60	0.43	587721.33	669735.93	N 32 36 54.02	W 103 54 58.76
	1500.00	2.01	59.60	1499.74	-23.65	4.51	23.64	0.03	587723.13	669738.97	N 32 36 54.03	W 103 54 58.73
	1600.00	1.98	60.00	1599.67	-26.66	6.28	26.64	0.03	587724.88	669741.98	N 32 36 54.05	W 103 54 58.69
	1700.00	2.21	56.56	1699.61	-29.77	8.19	29.75	0.26	587726.81	669745.09	N 32 36 54.07	W 103 54 58.66
	1800.00	2.43	53.13	1799.53	-33.08	10.53	33.05	0.26	587729.14	669748.39	N 32 36 54.09	W 103 54 58.62
	1900.00	1.94	42.39	1899.45	-35.92	13.05	35.89	0.64	587731.67	669751.23	N 32 36 54.12	W 103 54 58.58
	2000.00	1.46	31.64	1999.41	-37.73	15.38	37.70	0.57	587734.00	669753.04	N 32 36 54.14	W 103 54 58.56
	2100.00	1.41	26.41	2099.38	-38.95	17.57	38.92	0.14	587736.19	669754.25	N 32 36 54.16	W 103 54 58.55
	2200.00	1.36	21.18	2199.35	-39.93	19.78	39.89	0.14	587738.40	669755.23	N 32 36 54.18	W 103 54 58.54
	2300.00	1.11	32.26	2299.33	-40.88	21.70	40.84	0.34	587740.32	669756.16	N 32 36 54.20	W 103 54 58.53
	2400.00	0.87	43.33	2399.31	-41.92	23.07	41.88	0.31	587741.69	669757.21	N 32 36 54.22	W 103 54 58.51
	2500.00	1.07	51.26	2499.30	-43.18	24.21	43.13	0.24	587742.83	669758.46	N 32 36 54.23	W 103 54 58.50
	2600.00	1.27	59.19	2599.28	-44.86	25.36	44.81	0.26	587743.98	669760.14	N 32 36 54.24	W 103 54 58.48
	2700.00	1.36	66.52	2699.25	-46.90	26.40	46.85	0.19	587745.02	669762.18	N 32 36 54.25	W 103 54 58.45
	2800.00	1.44	73.85	2799.22	-49.20	27.23	49.14	0.20	587745.84	669764.48	N 32 36 54.26	W 103 54 58.43
	2900.00	1.40	60.76	2899.19	-51.47	28.17	51.41	0.33	587746.79	669766.75	N 32 36 54.27	W 103 54 58.40
	3000.00	1.35	47.68	2999.16	-53.41	29.56	53.35	0.32	587748.18	669768.69	N 32 36 54.28	W 103 54 58.38
	3100.00	1.25	38.42	3099.13	-54.97	31.21	54.90	0.23	587749.83	669770.24	N 32 36 54.30	W 103 54 58.36
	3200.00	1.15	28.17	3199.11	-56.14	32.94	56.07	0.22	587751.56	669771.40	N 32 36 54.31	W 103 54 58.35
	3300.00	0.97	22.96	3299.10	-56.96	34.60	56.89	0.21	587753.21	669772.22	N 32 36 54.33	W 103 54 58.34
	3400.00	0.80	16.75	3399.08	-57.49	36.04	57.42	0.19	587754.66	669772.75	N 32 36 54.35	W 103 54 58.33
	3500.00	0.72	32.63	3499.08	-58.04	37.24	57.96	0.22	587755.86	669773.29	N 32 36 54.36	W 103 54 58.32
	3600.00	0.64	48.50	3599.07	-58.79	38.14	58.71	0.20	587756.76	669774.05	N 32 36 54.37	W 103 54 58.32
	3700.00	0.68	88.48	3699.06	-59.81	38.53	59.73	0.45	587757.14	669775.06	N 32 36 54.37	W 103 54 58.30
	3800.00	0.72	128.47	3799.06	-60.89	38.15	60.81	0.48	587756.77	669776.15	N 32 36 54.37	W 103 54 58.29
	3900.00	0.83	136.65	3899.05	-61.88	37.23	61.80	0.16	587755.85	669777.14	N 32 36 54.36	W 103 54 58.28
	4000.00	0.94	144.83	3999.03	-62.85	36.04	62.77	0.17	587754.65	669778.11	N 32 36 54.34	W 103 54 58.27
	4100.00	1.02	153.49	4099.02	-63.71	34.57	63.64	0.17	587753.19	669778.98	N 32 36 54.33	W 103 54 58.26
	4200.00	1.11	162.14	4199.00	-64.40	32.85	64.33	0.18	587751.47	669779.67	N 32 36 54.31	W 103 54 58.25
	4300.00	1.11	176.31	4298.98	-64.76	30.96	64.69	0.27	587749.58	669780.03	N 32 36 54.29	W 103 54 58.25
	4400.00	1.11	190.47	4398.97	-64.64	29.04	64.58	0.27	587747.66	669779.92	N 32 36 54.28	W 103 54 58.25
	4500.00	0.99	195.84	4498.95	-64.23	27.26	64.17	0.16	587745.88	669779.50	N 32 36 54.26	W 103 54 58.25
	4600.00	0.87	201.20	4598.94	-63.71	25.72	63.66	0.15	587744.34	669778.99	N 32 36 54.24	W 103 54 58.26
	4700.00	0.84	205.01	4698.92	-63.12	24.35	63.07	0.08	587742.97	669778.41	N 32 36 54.23	W 103 54 58.26
	4800.00	0.81	208.82	4798.91	-62.47	23.06	62.42	0.08	587741.68	669777.76	N 32 36 54.22	W 103 54 58.27
	4900.00	0.77	213.67	4898.90	-61.76	21.89	61.71	0.08	587740.50	669777.05	N 32 36 54.20	W 103 54 58.28
	5000.00	0.73	218.51	4998.90	-60.98	20.83	60.94	0.07	587739.45	669776.28	N 32 36 54.19	W 103 54 58.29
	5100.00	0.46	244.64	5098.89	-60.22	20.16	60.18	0.38	587738.78	669775.52	N 32 36 54.19	W 103 54 58.30
	5200.00	0.20	270.76	5198.89	-59.89	19.99	59.84	0.29	587738.61	669774.98	N 32 36 54.19	W 103 54 58.31
	5300.00	0.31	259.00	5298.89	-59.25	19.94	59.20	0.12	587738.56	669774.54	N 32 36 54.19	W 103 54 58.31
	5400.00	0.43	247.24	5398.89	-58.63	19.74	58.59	0.14	587738.36	669773.93	N 32 36 54.18	W 103 54 58.32
	5500.00	0.65	268.31	5498.88	-57.72	19.58	57.68	0.29	587738.20	669773.01	N 32 36 54.18	W 103 54 58.33
	5600.00	0.88	289.37	5598.87	-56.43	19.82	56.39	0.36	587738.44	669771.72	N 32 36 54.18	W 103 54 58.34
	5700.00	0.58	282.00	5698.86	-55.21	20.18	55.17	0.31	587738.80	669770.50	N 32 36 54.19	W 103 54 58.36
	5800.00	0.28	274.64	5798.86	-54.47	20.30	54.43	0.30	587738.92	669769.77	N 32 36 54.19	W 103 54 58.37
	5900.00	0.43	283.66	5898.86	-53.86	20.41	53.82	0.16	587739.03	669769.16	N 32 36 54.19	W 103 54 58.37

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	11741.00	91.01	269.15	8721.32	3164.87	-2.80	-3164.87	1.87	587715.82	666550.70	N 32 36 54.08	W 103 55 36.00
	11836.00	91.54	268.99	8719.20	3259.84	-4.34	-3259.83	0.58	587714.28	666455.75	N 32 36 54.07	W 103 55 37.11
	11931.00	91.54	268.17	8716.85	3354.78	-6.70	-3354.77	0.86	587711.92	666360.82	N 32 36 54.05	W 103 55 38.22
	12026.00	91.89	267.59	8713.81	3449.68	-10.21	-3449.66	0.71	587708.41	666265.93	N 32 36 54.02	W 103 55 39.33
	12121.00	92.24	266.87	8710.38	3544.51	-14.80	-3544.49	0.84	587703.82	666171.11	N 32 36 53.98	W 103 55 40.44
	12216.00	91.10	267.81	8707.61	3639.38	-19.20	-3639.34	1.56	587699.42	666076.27	N 32 36 53.94	W 103 55 41.55
	12311.00	91.45	270.09	8705.50	3734.33	-20.95	-3734.30	2.43	587697.68	665981.32	N 32 36 53.93	W 103 55 42.66
	12406.00	92.59	269.86	8702.15	3829.27	-20.99	-3829.24	1.22	587697.63	665886.39	N 32 36 53.93	W 103 55 43.77
	12501.00	91.80	270.71	8698.51	3924.20	-20.51	-3924.16	1.22	587698.11	665791.47	N 32 36 53.94	W 103 55 44.88
	12596.00	91.01	271.76	8696.18	4019.14	-18.47	-4019.11	1.38	587700.15	665696.53	N 32 36 53.96	W 103 55 45.99
	12691.00	90.13	271.70	8695.24	4114.09	-15.60	-4114.06	0.93	587703.02	665601.58	N 32 36 53.99	W 103 55 47.10
	12786.00	91.36	271.80	8694.00	4209.03	-12.70	-4209.01	1.30	587705.92	665506.64	N 32 36 54.03	W 103 55 48.21
	12881.00	90.84	271.85	8692.18	4303.95	-9.67	-4303.94	0.55	587708.95	665411.72	N 32 36 54.06	W 103 55 49.32
	12976.00	91.54	271.28	8690.21	4398.89	-7.08	-4398.89	0.95	587711.54	665316.78	N 32 36 54.09	W 103 55 50.43
	13070.00	91.36	271.32	8687.83	4492.83	-4.95	-4492.83	0.20	587713.67	665222.84	N 32 36 54.11	W 103 55 51.53
	13165.00	92.33	271.72	8684.77	4587.74	-2.43	-4587.75	1.10	587716.19	665127.93	N 32 36 54.14	W 103 55 52.64
	13260.00	91.45	271.37	8681.64	4682.65	0.13	-4682.66	1.00	587718.75	665033.03	N 32 36 54.17	W 103 55 53.75
	13355.00	92.24	271.70	8678.58	4777.56	2.67	-4777.58	0.90	587721.29	664938.12	N 32 36 54.20	W 103 55 54.86
	13450.00	93.30	271.60	8673.99	4872.40	5.41	-4872.42	1.12	587724.03	664843.28	N 32 36 54.23	W 103 55 55.97
Final Survey	13545.00	94.62	271.43	8667.43	4967.13	7.91	-4967.16	1.40	587726.53	664748.55	N 32 36 54.26	W 103 55 57.07
Proj. To Bit	13690.00	94.62	271.43	8655.75	5111.61	11.52	-5111.65	0.00	587730.14	664604.07	N 32 36 54.30	W 103 55 58.76

Survey Type: Non-Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	18.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / COG Salada Vista 36 State #4H Gyro + MWD 8143ft - 13690ft
	18.000	8143.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / COG Salada Vista 36 State #4H Gyro + MWD
	8143.000	13545.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / COG Salada Vista 36 State #4H Gyro + MWD
	13545.000	13690.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / COG Salada Vista 36 State #4H Gyro + MWD

WELL: COG Salada Vista 36 State #4H	FIELD: NM Eddy County (NAD 83)	STRUCTURE: Patriot 6
Magnetic Parameters Model: BOGM 2012 Dip: 60.411° Mag Dec: 7.689°	Surface Location Lat: N 32 36 53.991 Long: W 103 54 59.903 Datum: NAD83 New Mexico State Plane, Eastern Zone, US Feet Grid Conv: 0.225° Scale Fact: 0.99992796	Miscellaneous Shot: Salada Vista 36 State #4H Plan: Rev1 MDT 2/26/13 TVD Ref: KCB(5417.38 above) Srvy Date: December 04, 2012

Legend

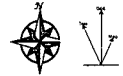
COG Salada Vista 36 State #4H (2012) LPS

COG Salada Vista 36 State #4H (2012) LPS

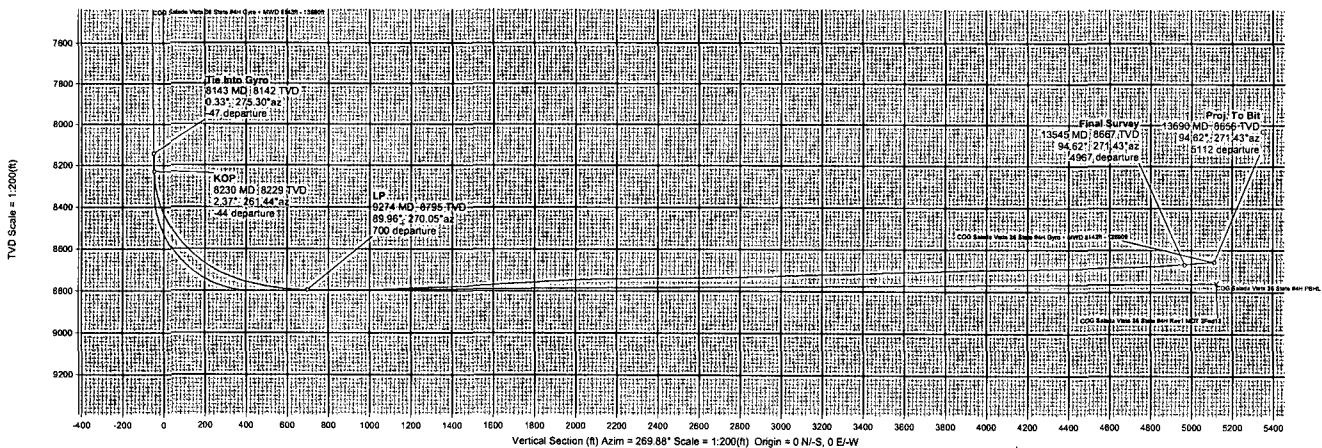
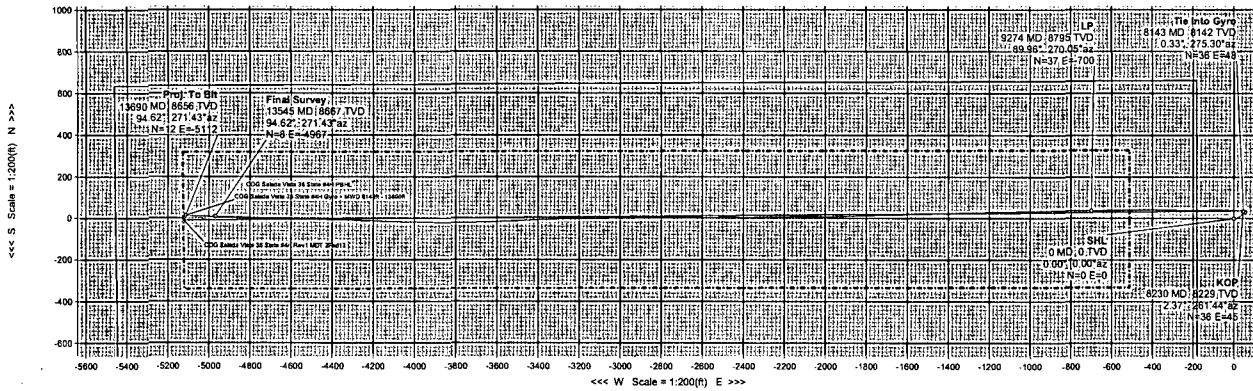
COG Salada Vista 36 State #4H (2012) LPS

COG Salada Vista 36 State #4H (2012) LPS

COG Salada Vista 36 State #4H (2012) LPS



Grid North
Tot Corr (M->G)
7.4557°
Mag Dec (7.680°)
Grid Conv (0.225°)



Drawn By: Curved User
Date Created: February 04, 2013 09:21:21 AM
Checked By:
Checked Date:
Approved By:
Approved Date: