

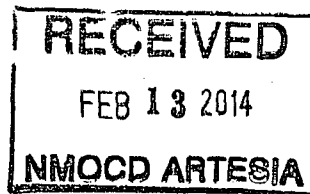


P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

December 6, 2013

30-015-41462

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



Attn: Kanicia Castillo

RE: **Bragg 10 Fee No. 001H**

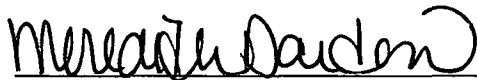
Please find enclosed a copy of the survey from 0.00' to 4523.00' ran on the above referenced well.

Sincerely,

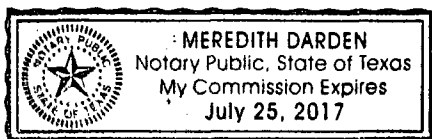

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 6th day of December A.D., 2013, by Keith Havelka.



Meredith Darden
Notary Public, State of Texas



Company: COG Operating, LLC (Concho)

Lease/Well: Bragg 10 Fee/No. 001



Rig Name: Silver Oak 3

State/County: New Mexico/Eddy

Latitude: 32.67, Longitude: -104.38

GRID North is 0.02 Degrees West of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB: 17'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 12/5/2013 / 13:15

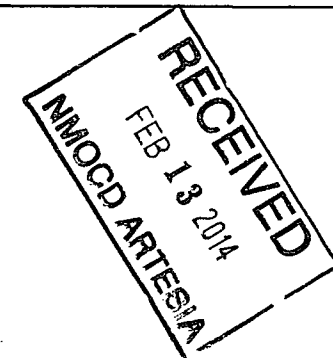
Vaughn Energy Services

Midland, Texas

432-563-5444

Surveyor: Tim Dillon

Bragg 10 Fee No. 001H / API 30-015-41462

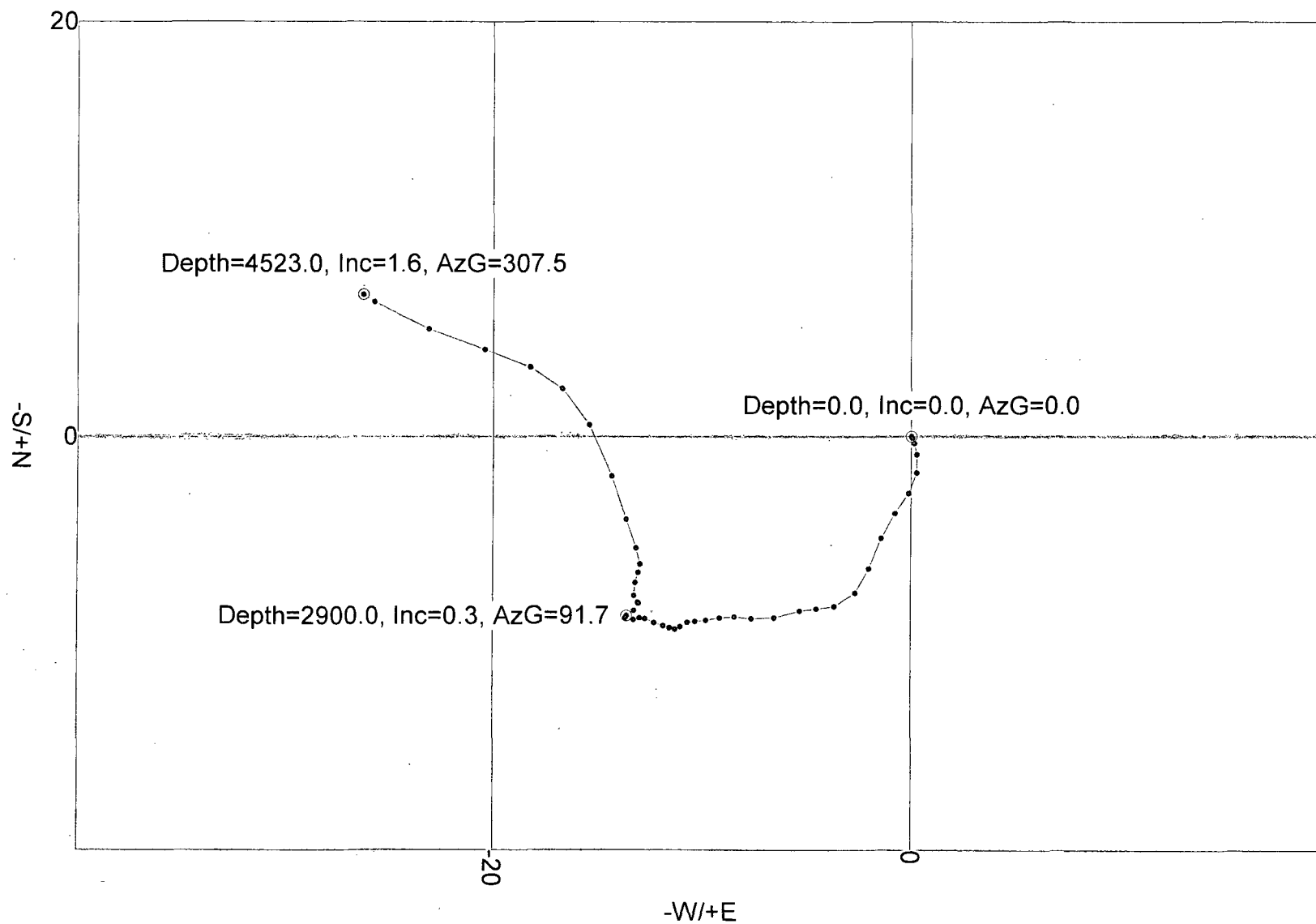


Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.11	152.07	100.00	-0.09	0.05	0.10	152.07	0.11
200.00	0.18	163.10	200.00	-0.33	0.14	0.35	157.06	0.08
300.00	0.47	169.98	300.00	-0.88	0.26	0.92	163.81	0.28
400.00	0.55	188.38	399.99	-1.76	0.26	1.78	171.69	0.18
500.00	0.68	211.36	499.99	-2.74	-0.12	2.74	182.54	0.27
600.00	0.65	216.89	599.98	-3.70	-0.77	3.78	191.77	0.07
700.00	0.94	203.45	699.97	-4.90	-1.44	5.11	196.34	0.34
800.00	0.87	199.84	799.96	-6.37	-2.02	6.68	197.60	0.09
900.00	0.69	219.89	899.95	-7.54	-2.67	8.00	199.46	0.32
1000.00	0.72	251.70	999.94	-8.20	-3.65	8.98	203.97	0.39
1100.00	0.30	286.82	1099.94	-8.32	-4.50	9.46	208.37	0.50
1200.00	0.66	251.15	1199.94	-8.43	-5.29	9.96	212.11	0.45
1300.00	0.78	257.39	1299.93	-8.77	-6.50	10.92	216.57	0.15
1400.00	0.51	282.76	1399.92	-8.82	-7.61	11.65	220.79	0.39
1500.00	0.42	269.17	1499.92	-8.73	-8.41	12.12	223.94	0.14
1600.00	0.40	262.10	1599.92	-8.78	-9.12	12.66	226.09	0.05
1700.00	0.38	259.60	1699.91	-8.89	-9.79	13.22	227.77	0.02
1800.00	0.21	273.22	1799.91	-8.94	-10.30	13.64	229.07	0.18

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.23	257.40	1899.91	-8.97	-10.68	13.95	229.99	0.06
2000.00	0.25	219.27	1999.91	-9.18	-11.02	14.34	230.19	0.16
2100.00	0.15	289.98	2099.91	-9.30	-11.28	14.62	230.47	0.24
2200.00	0.17	281.46	2199.91	-9.23	-11.54	14.78	231.35	0.03
2300.00	0.20	293.41	2299.91	-9.13	-11.84	14.96	232.37	0.05
2400.00	0.33	286.72	2399.91	-8.98	-12.27	15.21	233.81	0.13
2500.00	0.22	302.10	2499.91	-8.80	-12.71	15.46	235.31	0.13
2600.00	0.14	237.79	2599.91	-8.76	-12.98	15.66	235.98	0.20
2700.00	0.22	262.34	2699.91	-8.85	-13.27	15.95	236.30	0.11
2800.00	0.28	299.24	2799.91	-8.76	-13.67	16.24	237.36	0.17
2900.00	0.32	91.73	2899.90	-8.65	-13.60	16.12	237.56	0.58
3000.00	0.32	14.21	2999.90	-8.39	-13.25	15.69	237.67	0.40
3100.00	0.20	63.38	3099.90	-8.04	-13.03	15.31	238.32	0.24
3200.00	0.22	257.11	3199.90	-8.01	-13.06	15.32	238.49	0.42
3300.00	0.43	359.98	3299.90	-7.67	-13.25	15.31	239.93	0.53
3400.00	0.29	12.92	3399.90	-7.05	-13.20	14.96	241.89	0.17
3500.00	0.31	21.41	3499.90	-6.56	-13.04	14.60	243.31	0.05
3600.00	0.19	357.01	3599.90	-6.15	-12.95	14.34	244.62	0.16
3700.00	0.73	343.11	3699.89	-5.37	-13.15	14.20	247.78	0.55
3800.00	0.96	338.85	3799.88	-3.98	-13.64	14.20	253.73	0.23
3900.00	1.56	343.23	3899.86	-1.90	-14.33	14.45	262.46	0.61
4000.00	1.54	328.94	3999.82	0.56	-15.41	15.42	272.07	0.39
4100.00	0.97	315.20	4099.80	2.30	-16.70	16.86	277.86	0.64
4200.00	1.18	295.57	4199.78	3.35	-18.23	18.54	280.42	0.42
4300.00	1.50	288.45	4299.75	4.21	-20.41	20.84	281.66	0.36
4400.00	1.76	291.56	4399.71	5.19	-23.08	23.65	282.68	0.27
4500.00	1.64	300.65	4499.67	6.49	-25.74	26.54	284.14	0.29
4523.00	1.59	307.47	4522.66	6.85	-26.27	27.15	284.61	0.86



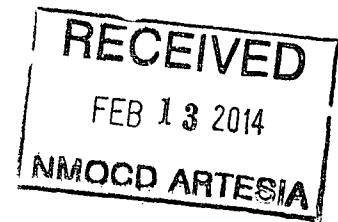
Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Tim Dillon
Bragg 10 Fee No. 001H / API 30-015-41462



VES Survey Date: 11/18/2013



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288



December 4, 2013

COG, LLC
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

RE: Bragg 10 Fee 1H
150' FSL & 330' FWL
Sec. 10, T19S, R26E
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

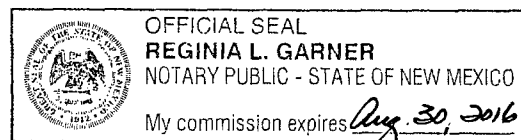
Very truly yours,

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 4th day of December, 2013.

Notary Public



BRAGG 10 FEE 1 H

Date	Depth	Deviation	Direction
11/13/2013	84	0.30	0.00
11/13/2013	331	0.10	0.00
11/14/2013	939	0.40	0.00
11/15/2013	1251	0.50	0.00
11/16/2013	1751	0.30	0.00
11/16/2013	2219	0.20	0.00
11/17/2013	2687	0.40	0.00
11/17/2013	3156	0.30	0.00
11/18/2013	3625	0.20	0.00
11/18/2013	4094	0.70	0.00
11/24/2013	2773	3.60	349.00
11/24/2013	2805	8.90	353.70
11/24/2013	2836	12.90	356.70
11/24/2013	2867	16.60	1.40
11/24/2013	2899	19.40	2.40
11/24/2013	2930	21.70	3.00
11/24/2013	2961	24.00	2.80
11/24/2013	2992	26.50	2.10
11/24/2013	3023	28.20	3.10
11/25/2013	3056	31.50	2.80
11/25/2013	3087	35.00	4.40
11/25/2013	3119	37.50	6.80
11/25/2013	3150	40.20	7.50
11/25/2013	3181	42.90	7.30
11/25/2013	3212	46.00	5.90
11/25/2013	3306	55.40	4.60
11/25/2013	3337	58.00	4.20
11/25/2013	3368	60.40	3.90
11/25/2013	3399	62.90	3.80
11/25/2013	3430	66.00	3.70
11/25/2013	3491	71.70	1.90
11/25/2013	3522	74.70	1.40
11/25/2013	3554	77.50	2.00
11/25/2013	3584	80.00	2.40
11/25/2013	3616	82.90	2.40
11/26/2013	3635	84.40	3.40
11/26/2013	3666	87.10	3.30
11/26/2013	3698	89.10	3.00
11/26/2013	3730	90.30	3.40
11/26/2013	3760	91.60	2.80
11/26/2013	3824	93.00	1.60
11/26/2013	3918	93.00	0.70
11/27/2013	4011	92.70	359.60

Date	Depth	Deviation	Direction
11/27/2013	4105	92.80	357.80
11/27/2013	4199	92.60	358.40
11/27/2013	4292	92.50	356.70
11/27/2013	4386	92.10	355.40
11/27/2013	4480	89.90	355.00
11/27/2013	4574	89.10	354.80
11/27/2013	4667	89.40	355.20
11/27/2013	4760	89.80	357.50
11/27/2013	4853	90.40	357.90
11/28/2013	4945	90.50	358.90
11/28/2013	5038	91.00	358.60
11/28/2013	5132	90.80	359.80
11/28/2013	5225	91.60	359.30
11/28/2013	5318	92.20	358.70
11/28/2013	5410	91.50	358.60
11/28/2013	5504	91.20	358.70
11/28/2013	5598	91.40	358.30
11/28/2013	5692	90.50	357.80
11/28/2013	5786	90.80	357.50
11/29/2013	5879	90.80	357.30
11/29/2013	5973	88.80	358.00
11/29/2013	6066	89.00	358.70
11/29/2013	6347	90.50	358.60
11/29/2013	6442	90.30	358.30
11/30/2013	6535	90.20	358.50
11/30/2013	6628	89.70	358.30
11/30/2013	6719	89.00	358.70
11/30/2013	6811	80.40	358.80
11/30/2013	6908	92.10	0.10
12/1/2013	7376	91.60	357.80
12/1/2013	7468	92.00	357.50
12/1/2013	7561	92.60	357.30
12/1/2013	7654	93.40	357.30
12/1/2013	7749	92.20	358.60
12/1/2013	7802	91.60	359.20



COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Bragg 10 Fee

#1H

WB2/Job #1311531

RECEIVED

FEB 13 2014

NMOCD ARTESIA

Survey: Phoenix MWD Surveys

Phoenix Final Survey Report

03 December, 2013





Phoenix Technology Services

Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	KB @ 3353.00usft (Silver Oak 3)
Site:	Bragg 10 Fee	MD Reference:	KB @ 3353.00usft (Silver Oak 3)
Well:	#1H	North Reference:	Grid
Wellbore:	WB2/Job #1311531	Survey Calculation Method:	Minimum Curvature
Design:	Survey (Silver Oak 3)	Database:	GCR/DB

Project:	Eddy County, New Mexico (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Bragg 10 Fee		
Site Position:		Northing:	606,787.30 usft
From:	Map	Easting:	486,726.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 40' 5.34496 N
		Longitude:	104° 22' 35.28540 W
		Grid Convergence:	-0.02 °

Well:	#1H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 40' 5.34496 N
		Longitude:	104° 22' 35.28540 W
		Ground Level:	3,335.00 usft

Wellbore:	WB2/Job #1311531		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	11/19/13	7.69
			Dip Angle
			60.40
			Field Strength
			48,552

Design:	Survey (Silver Oak 3)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	2,700.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			1.83

Survey Program	Date: 12/03/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
100.00	2,700.00	VES Gyro (WB1/Job #1311531)	VES-ISCWSA-GYRO-3
2,700.00	7,860.00	Phoenix MWD Surveys (WB2/Job #131153)	MWD
			Description
			Biaxial Semi-Cont. Gyro
			MWD - Standard

Survey	MD	Inc	Azi (azimuth)	TVD	N/S	E/W	V. Sec	D Leg
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(%/100usft)
	2,700.00	0.22	262.34	2,699.91	-8.85	-13.27	-9.27	0.00
Tie-on to Gyro								
	2,773.00	3.60	349.00	2,772.86	-6.62	-13.85	-7.06	4.92
First Phoenix MWD Survey								
	2,805.00	8.90	353.70	2,804.66	-3.17	-14.31	-3.63	16.63
	2,836.00	12.90	356.70	2,835.09	2.67	-14.77	2.20	13.03
	2,867.00	16.60	1.40	2,865.07	10.55	-14.86	10.08	12.53
	2,899.00	19.40	2.40	2,895.50	20.44	-14.53	19.96	8.80
	2,930.00	21.70	3.00	2,924.52	31.30	-14.01	30.84	7.45
	2,961.00	24.00	2.80	2,953.09	43.33	-13.41	42.88	7.42
	2,992.00	26.50	2.10	2,981.12	56.54	-12.84	56.10	8.12



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27-NME)	TVD Reference:	KB @ 3353.00usft (Silver Oak 3)
Site:	Bragg 10 Fee	MD Reference:	KB @ 3353.00usft (Silver Oak 3)
Well:	#1H	North Reference:	Grid
Wellbore:	WB2/Job #1311531	Survey Calculation Method:	Minimum Curvature
Design:	Survey (Silver Oak 3)	Database:	GCR DB

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
3,024.00	28.20	3.10	3,009.54	71.22	-12.17	70.80	5.50
3,056.00	31.50	2.80	3,037.30	87.13	-11.36	86.72	10.32
3,087.00	35.00	4.40	3,063.22	104.09	-10.28	103.70	11.64
3,119.00	37.50	6.80	3,089.02	122.91	-8.42	122.58	8.98
3,150.00	40.20	7.50	3,113.16	142.20	-6.00	141.94	8.82
3,181.00	42.90	7.30	3,136.36	162.59	-3.35	162.40	8.72
3,212.00	46.00	5.90	3,158.49	184.15	-0.86	184.03	10.49
3,243.00	49.30	5.10	3,179.37	206.96	1.33	206.89	10.81
3,274.00	52.50	4.90	3,198.92	230.92	3.42	230.91	10.33
3,306.00	55.40	4.60	3,217.75	256.70	5.57	256.75	9.09
3,337.00	58.00	4.20	3,234.77	282.53	7.55	282.63	8.46
3,368.00	60.40	3.90	3,250.64	309.09	9.43	309.23	7.79
3,398.00	62.90	3.80	3,264.88	335.43	11.20	335.62	8.34
3,429.00	66.00	3.70	3,278.25	363.33	13.03	363.57	10.00
3,460.00	69.00	3.10	3,290.11	391.92	14.73	392.19	9.84
3,491.00	71.70	1.90	3,300.54	421.09	16.00	421.38	9.44
3,522.00	74.70	1.40	3,309.50	450.75	16.85	451.05	9.80
3,554.00	77.50	2.00	3,317.18	481.79	17.78	482.11	8.94
3,584.00	80.00	2.40	3,323.03	511.19	18.91	511.53	8.44
3,616.00	82.90	2.40	3,327.79	542.80	20.23	543.17	9.06
3,635.00	84.40	3.40	3,329.89	561.66	21.19	562.05	9.47
3,666.00	87.10	3.30	3,332.19	592.52	22.99	592.95	8.72
3,698.00	89.10	3.00	3,333.25	624.45	24.75	624.93	6.32
3,730.00	90.50	3.40	3,333.36	656.40	26.54	656.92	4.55
3,761.00	91.60	2.80	3,332.79	687.35	28.21	687.90	4.04
3,824.00	93.00	1.60	3,330.27	750.25	30.63	750.85	2.93
3,918.00	93.00	0.70	3,325.35	844.10	32.51	844.71	0.96
4,011.00	92.70	359.60	3,320.72	936.99	32.76	937.56	1.22
4,105.00	92.80	357.80	3,316.21	1,030.85	30.63	1,031.30	1.92
4,199.00	92.60	358.40	3,311.78	1,124.69	27.51	1,125.00	0.67
4,292.00	92.50	356.70	3,307.65	1,217.51	23.54	1,217.65	1.83
4,386.00	92.10	355.40	3,303.87	1,311.21	17.07	1,311.09	1.45
4,480.00	89.90	355.00	3,302.23	1,404.86	9.21	1,404.44	2.38
4,574.00	89.10	354.80	3,303.05	1,498.49	0.85	1,497.75	0.88
4,667.00	89.40	355.20	3,304.27	1,591.12	-7.25	1,590.08	0.54
4,760.00	89.80	357.50	3,304.92	1,683.93	-13.17	1,682.65	2.51
4,853.00	90.40	357.90	3,304.76	1,776.85	-16.91	1,775.41	0.78
4,945.00	90.50	358.90	3,304.03	1,868.81	-19.47	1,867.24	1.09
5,038.00	91.00	358.60	3,302.82	1,961.78	-21.50	1,960.10	0.63
5,132.00	90.80	359.80	3,301.34	2,055.76	-22.82	2,053.99	1.29
5,225.00	91.60	359.30	3,299.39	2,148.73	-23.55	2,146.89	1.01
5,318.00	92.20	358.70	3,296.31	2,241.67	-25.17	2,239.73	0.91
5,411.00	91.50	358.60	3,293.31	2,334.59	-27.36	2,332.54	0.76
5,505.00	91.30	358.50	3,291.01	2,428.54	-29.74	2,426.35	0.24



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27-NME)	TVD Reference:	KB @ 3353.00usft (Silver Oak 3)
Site:	Bragg 10 Fee	MD Reference:	KB @ 3353.00usft (Silver Oak 3)
Well:	#1H	North Reference:	Grid
Wellbore:	WB2/Job #1311531	Survey Calculation Method:	Minimum Curvature
Design:	Survey (Silver Oak 3)	Database:	GCR DB

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,598.00	91.40	358.30	3,288.82	2,521.47	-32.33	2,519.16	0.24
5,692.00	90.50	357.80	3,287.26	2,615.40	-35.53	2,612.94	1.10
5,786.00	90.80	357.50	3,286.20	2,709.32	-39.38	2,706.69	0.45
5,879.00	90.80	357.30	3,284.90	2,802.21	-43.60	2,799.40	0.22
5,973.00	88.80	358.00	3,285.22	2,896.13	-47.46	2,893.14	2.25
6,066.00	89.00	358.70	3,287.01	2,989.07	-50.13	2,985.96	0.78
6,160.00	89.60	358.70	3,288.16	3,083.04	-52.27	3,079.81	0.64
6,254.00	90.10	358.30	3,288.40	3,177.01	-54.73	3,173.65	0.68
6,347.00	90.50	358.60	3,287.92	3,269.97	-57.24	3,266.49	0.54
6,441.00	90.30	358.30	3,287.26	3,363.94	-59.78	3,360.32	0.38
6,535.00	90.20	358.50	3,286.85	3,457.90	-62.41	3,454.15	0.24
6,628.00	89.70	358.30	3,286.93	3,550.86	-65.01	3,546.99	0.58
6,722.00	89.00	358.70	3,288.00	3,644.82	-67.47	3,640.82	0.86
6,815.00	90.40	358.80	3,288.49	3,737.80	-69.49	3,733.68	1.51
6,908.00	92.10	0.10	3,286.46	3,830.76	-70.39	3,826.57	2.30
7,002.00	92.50	0.60	3,282.68	3,924.69	-69.81	3,920.47	0.68
7,095.00	91.30	0.10	3,279.60	4,017.63	-69.25	4,013.38	1.40
7,188.00	91.40	0.10	3,277.41	4,110.61	-69.08	4,106.32	0.11
7,282.00	91.40	358.20	3,275.11	4,204.56	-70.48	4,200.18	2.02
7,375.00	91.60	357.80	3,272.68	4,297.47	-73.72	4,292.94	0.48
7,468.00	92.00	357.50	3,269.76	4,390.35	-77.53	4,385.65	0.54
7,561.00	92.60	357.30	3,266.03	4,483.18	-81.75	4,478.30	0.68
7,654.00	93.40	357.30	3,261.16	4,575.95	-86.12	4,570.88	0.86
7,749.00	92.20	358.60	3,256.52	4,670.77	-89.52	4,665.54	1.86
7,801.00	91.60	359.20	3,254.79	4,722.73	-90.52	4,717.45	1.63
Last Phoenix MWD Survey							
7,860.00	91.60	359.20	3,253.15	4,781.70	-91.34	4,776.36	0.00
Projection to TD							

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		N/S (usft)	E/W (usft)	
2,700.00	2,699.91	-8.85	-13.27	Tie-on to Gyro
2,773.00	2,772.86	-6.62	-13.85	First Phoenix MWD Survey
7,801.00	3,254.79	4,722.73	-90.52	Last Phoenix MWD Survey
7,860.00	3,253.15	4,781.70	-91.34	Projection to TD

Checked By: _____ Approved By: _____ Date: _____