



3001540262

January 9, 2015

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

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 20 2015
RECEIVED

Attn: Kanicia Castillo

RE: **Falabella 31 Fee 2H**

Please find enclosed a copy of the survey from 0.00' to 2036.00' ran on the above referenced well.

Sincerely,

Keith Havelka
Operations

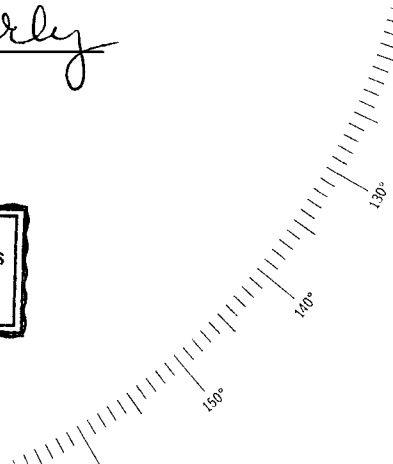
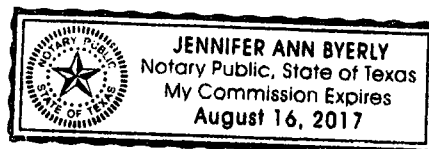
STATE OF TEXAS §

§

COUNTY OF NUECES §

This instrument was acknowledged before me on the 9 day of January A.D., 2015, by Keith Havelka.

Jennifer Ann Byerly
Notary Public, State of Texas





Company: Concho
 Lease/Well: Falabella 31 Fee/2H
 Location: S31 T18S R26E

Rig Name: Silveroak 3
 State/County: New Mexico/Eddy

Latitude: 32.70, Longitude: -104.42

GRID North is 0.05 Degrees West of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 18 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 1/9/2015 / 11:22

VES Survey International

Midland, TX

432-563-5444

Surveyor: Andrew Askew

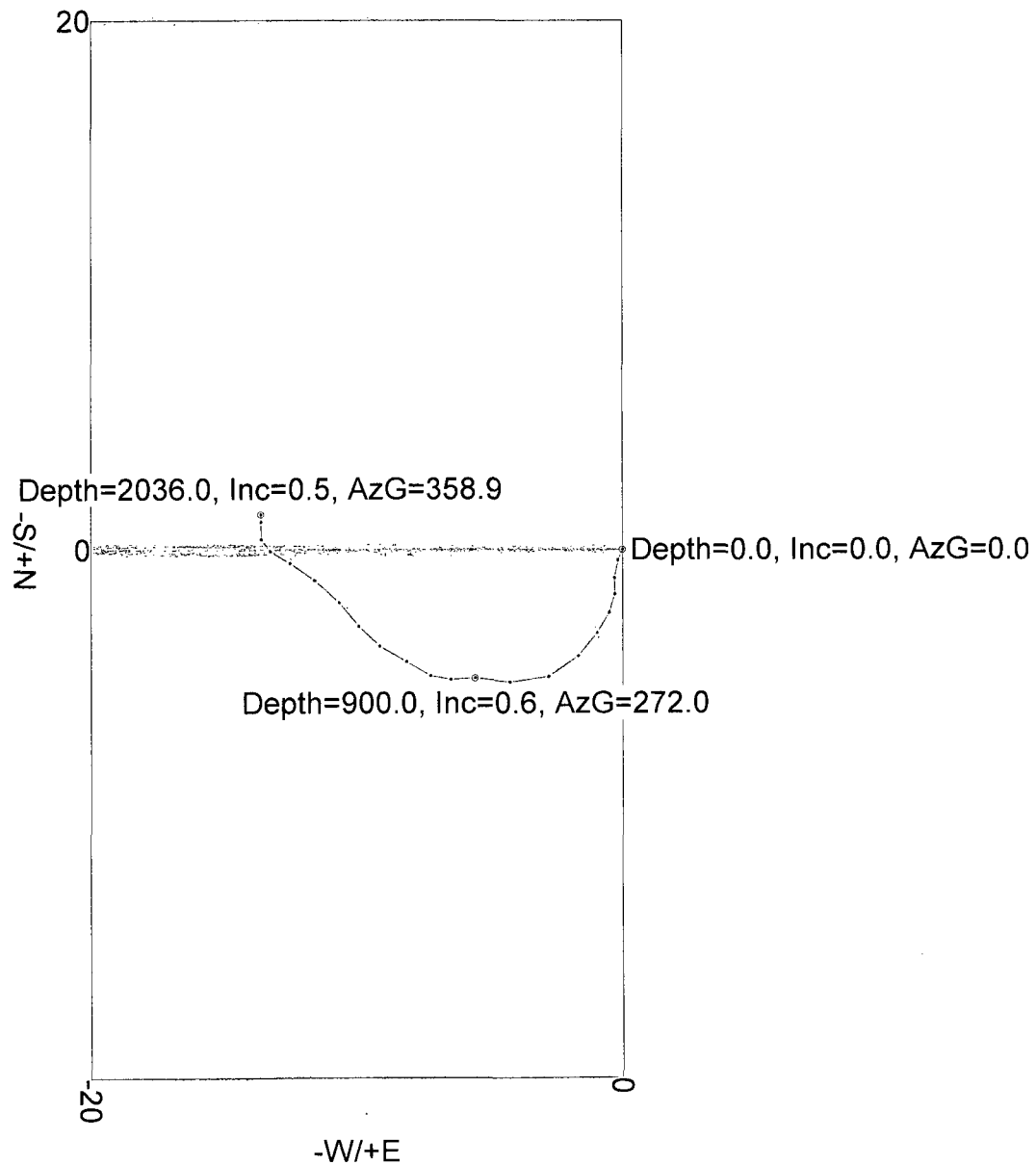
Falabella 31 Fee 2H / API 30-015-40262

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	0.52	203.06	100.00	-0.41	-0.18	-0.41	0.45	203.06	0.52
200.00	0.30	168.31	200.00	-1.08	-0.30	-1.08	1.12	195.52	0.32
300.00	0.42	187.38	299.99	-1.70	-0.30	-1.70	1.72	189.86	0.17
400.00	0.42	205.87	399.99	-2.39	-0.50	-2.39	2.44	191.87	0.14
500.00	0.60	213.83	499.99	-3.16	-0.96	-3.16	3.30	196.82	0.19
600.00	0.69	224.91	599.98	-4.02	-1.67	-4.02	4.35	202.56	0.15
700.00	0.90	242.95	699.97	-4.80	-2.79	-4.80	5.55	210.17	0.33
800.00	0.88	280.44	799.96	-5.02	-4.24	-5.02	6.57	220.24	0.57
900.00	0.61	271.99	899.95	-4.86	-5.54	-4.86	7.36	228.73	0.29
1000.00	0.44	259.54	999.95	-4.91	-6.45	-4.91	8.10	232.71	0.21
1100.00	0.50	298.26	1099.94	-4.77	-7.21	-4.77	8.64	236.50	0.32
1200.00	0.70	301.79	1199.94	-4.24	-8.11	-4.24	9.15	242.40	0.20
1300.00	0.65	298.91	1299.93	-3.64	-9.13	-3.64	9.83	248.25	0.06
1400.00	0.62	328.29	1399.93	-2.90	-9.92	-2.90	10.34	253.69	0.33
1500.00	0.72	314.39	1499.92	-2.00	-10.65	-2.00	10.84	259.36	0.19
1600.00	0.71	309.56	1599.91	-1.17	-11.58	-1.17	11.64	264.24	0.06
1700.00	0.59	299.89	1699.91	-0.52	-12.50	-0.52	12.51	267.63	0.17
1800.00	0.42	302.63	1799.90	-0.07	-13.25	-0.07	13.25	269.72	0.17

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	0.30	352.61	1899.90	0.39	-13.59	0.39	13.60	271.64	0.32
2000.00	0.46	3.22	1999.90	1.05	-13.61	1.05	13.65	274.40	0.17
2036.00	0.48	358.89	2035.90	1.34	-13.60	1.34	13.67	275.64	0.12



VES Survey International
Midland, TX
432-563-5444
Surveyor: Andrew Askew
Falabella 31 Fee 2H / API 30-015-40262



V.E.S. Survey Date: 12/11/2014



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

December 19, 2014

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

RE: Falabella 31 Fee #2H
150' FSL & 1700' FWL
Sec. 31, T18S, R26E
Eddy County, New Mexico

Dear Sir,

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

Very truly yours,

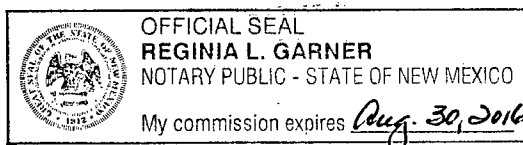
A handwritten signature in cursive script that reads "Chris Graham".

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 19th day of December, 2014.

A handwritten signature in cursive script that reads "Regina L. Garner".

Notary Public

FALABELLA 31 FEE #2H

Date	Depth	Deviation	Direction
12/9/2014	197	0.50	0.00
12/9/2014	465	0.50	0.00
12/9/2014	925	0.90	0.00
12/10/2014	1174	0.60	0.00
12/11/2014	1510	0.60	0.00
12/11/2014	1977	0.90	0.00
12/12/2014	2139	1.70	9.50
12/12/2014	2170	4.40	14.60
12/12/2014	2232	10.70	7.50
12/12/2014	2263	13.80	6.60
12/12/2014	2294	16.90	7.60
12/12/2014	2326	20.00	9.10
12/12/2014	2357	23.10	9.40
12/12/2014	2388	26.40	8.70
12/12/2014	2419	29.98	7.80
12/12/2014	2450	33.00	7.40
12/12/2014	2481	36.10	6.60
12/13/2014	2544	42.40	4.80
12/13/2014	2575	45.50	4.50
12/13/2014	2607	48.40	3.70
12/13/2014	2638	51.30	2.60
12/13/2014	2670	54.00	2.00
12/13/2014	2701	56.60	2.10
12/13/2014	2732	59.30	2.50
12/13/2014	2763	62.20	3.20
12/13/2014	2857	70.30	2.60
12/13/2014	2888	73.10	2.10
12/13/2014	2920	75.90	1.20
12/13/2014	2951	78.50	0.90
12/13/2014	2983	81.50	0.70
12/13/2014	3014	85.40	1.00
12/13/2014	3045	89.00	1.70
12/13/2014	3096	92.70	1.80
12/13/2014	3189	93.70	1.40
12/14/2014	3283	93.90	1.21
12/14/2014	3376	92.90	1.30
12/14/2014	3469	92.50	1.50
12/14/2014	3563	92.40	2.50
12/14/2014	3656	92.90	3.20
12/14/2014	3750	92.00	3.30
12/14/2014	3843	91.60	3.40
12/14/2014	3936	91.50	3.40
12/14/2014	4029	91.60	3.90

Date	Depth	Deviation	Direction
12/14/2014	4122	91.50	3.80
12/14/2014	4215	91.50	3.90
12/14/2014	4309	92.00	3.60
12/14/2014	4403	91.90	3.70
12/15/2014	4496	91.50	3.30
12/15/2014	4589	91.20	3.10
12/15/2014	4682	92.20	2.50
12/15/2014	4776	92.20	2.20
12/15/2014	4869	92.20	1.70
12/15/2014	4962	92.30	2.60
12/15/2014	5056	92.40	2.90
12/15/2014	5149	92.40	2.50
12/15/2014	5243	92.40	2.40
12/15/2014	5336	92.50	0.90
12/15/2014	5430	91.90	359.60
12/15/2014	5524	91.10	359.30
12/15/2014	5617	91.30	359.30
12/15/2014	5711	91.20	358.50
12/16/2014	5804	91.10	356.80
12/16/2014	5898	91.30	355.20
12/16/2014	5991	91.80	353.10
12/16/2014	6084	91.70	350.90
12/16/2014	6178	91.70	350.10
12/16/2014	6271	91.60	350.10
12/16/2014	6364	91.60	350.50
12/16/2014	6457	92.10	351.70
12/16/2014	6551	92.20	352.10
12/16/2014	6645	92.30	352.20
12/16/2014	6738	92.20	352.10
12/16/2014	6832	92.40	351.70
12/16/2014	6925	92.40	351.50
12/16/2014	7018	92.40	351.20
12/17/2014	7113	92.50	350.90
12/17/2014	7201	92.90	350.50

EOF



COG Operating LLC

Eddy County, NM (NAD27 NME)

Falabella 31 Fee

#2H

WB1 / Job #1412162

Design: Surveys (Silver Oak 3)

Standard Survey Report

17 December, 2014

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 20 2015
RECEIVED



PHOENIX
TECHNOLOGY SERVICES



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3446.00usft (Silver Oak 3)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3446.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1 / Job #1412162	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

Project:	Eddy County, NM (NAD27 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:	Falabella 31 Fee				
Site Position:	Northing:	617,359.30 usft	Latitude:	32° 41' 49.87612 N	
From: Map	Easting:	472,777.20 usft	Longitude:	104° 25' 18.57515 W	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.05 °

Well:	#2H					
Well Position	+N/-S	0.00 usft	Northing:	617,361.30 usft	Latitude:	32° 41' 49.89063 N
	+E/-W	0.00 usft	Easting:	472,144.40 usft	Longitude:	104° 25' 25.98051 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,428.00 usft	

Wellbore:	WB1 / Job #1412162				
Magnetics:	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/10/2014	7.59	60.39	48,458

Design:	Surveys (Silver Oak 3)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	358.95	

Survey Program	Date 12/17/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	2,036.00	VES Gyro Surveys (WB1 / Job #1412162)	NS-GYRO-MS	North sensing gyrocompassing m/s	
2,077.00	7,261.00	Phoenix MWD Surveys (WB1 / Job #1412)	PHX+MWD+IGRF	PHX+MWD+IGRF v3: standard declination	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.52	203.06	100.00	-0.42	-0.18	-0.41	0.52	0.52	0.00
200.00	0.30	168.31	200.00	-1.09	-0.30	-1.09	0.32	-0.22	-34.75
300.00	0.42	187.38	299.99	-1.71	-0.30	-1.71	0.17	0.12	19.07
400.00	0.42	205.87	399.99	-2.40	-0.50	-2.39	0.13	0.00	18.49
500.00	0.60	213.83	499.99	-3.17	-0.95	-3.15	0.19	0.18	7.96
600.00	0.69	224.91	599.98	-4.03	-1.67	-4.00	0.15	0.09	11.08
700.00	0.90	242.95	699.97	-4.81	-2.80	-4.76	0.32	0.21	18.04
800.00	0.88	280.44	799.96	-5.03	-4.25	-4.95	0.57	-0.02	37.49
900.00	0.61	271.99	899.95	-4.87	-5.54	-4.77	0.29	-0.27	-8.45



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County NM (NAD27-NME)	TVD Reference:	KB @ 3446.00usft (Silver Oak 3)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3446.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1/Job # 1412162	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.44	259.54	999.95	-4.93	-6.45	-4.81	0.20	-0.17	-12.45
1,100.00	0.50	298.26	1,099.94	-4.79	-7.21	-4.66	0.32	0.06	38.72
1,200.00	0.70	301.79	1,199.94	-4.26	-8.11	-4.11	0.20	0.20	3.53
1,300.00	0.65	298.91	1,299.93	-3.66	-9.13	-3.50	0.06	-0.05	-2.88
1,400.00	0.62	328.29	1,399.93	-2.93	-9.91	-2.75	0.32	-0.03	29.38
1,500.00	0.72	314.39	1,499.92	-2.03	-10.64	-1.83	0.19	0.10	-13.90
1,600.00	0.71	309.56	1,599.91	-1.20	-11.57	-0.98	0.06	-0.01	-4.83
1,700.00	0.59	299.89	1,699.91	-0.54	-12.49	-0.32	0.16	-0.12	-9.67
1,800.00	0.42	302.63	1,799.90	-0.09	-13.25	0.15	0.17	-0.17	2.74
1,900.00	0.30	352.61	1,899.90	0.37	-13.59	0.62	0.32	-0.12	49.98
2,000.00	0.46	3.22	1,999.90	1.03	-13.60	1.28	0.17	0.16	10.61
2,036.00	0.48	358.89	2,035.90	1.32	-13.60	1.57	0.11	0.06	-12.03
Tie-on to VES Gyro Survey									
2,077.00	0.60	344.90	2,076.89	1.70	-13.66	1.95	0.43	0.29	-34.12
First Phoenix MWD Survey									
2,108.00	0.60	345.90	2,107.89	2.02	-13.74	2.27	0.03	0.00	3.23
2,139.00	1.70	9.50	2,138.89	2.63	-13.70	2.88	3.79	3.55	76.13
2,170.00	4.40	14.60	2,169.84	4.23	-13.33	4.47	8.74	8.71	16.45
2,201.00	7.40	11.20	2,200.67	7.34	-12.64	7.57	9.74	9.68	-10.97
2,232.00	10.70	7.50	2,231.28	12.15	-11.87	12.37	10.80	10.65	-11.94
2,263.00	13.80	6.60	2,261.57	18.68	-11.07	18.88	10.02	10.00	-2.90
2,294.00	16.90	7.60	2,291.46	26.82	-10.05	27.00	10.04	10.00	3.23
2,326.00	20.00	9.10	2,321.81	36.84	-8.57	36.99	9.80	9.69	4.69
2,357.00	23.10	9.40	2,350.64	48.08	-6.74	48.19	10.01	10.00	0.97
2,388.00	26.40	8.70	2,378.79	60.89	-4.70	60.97	10.69	10.65	-2.26
2,419.00	29.80	7.80	2,406.13	75.34	-2.61	75.37	11.05	10.97	-2.90
2,450.00	33.00	7.40	2,432.59	91.35	-0.48	91.34	10.34	10.32	-1.29
2,481.00	36.10	6.60	2,458.12	108.80	1.66	108.75	10.11	10.00	-2.58
2,512.00	39.40	5.80	2,482.63	127.66	3.70	127.57	10.76	10.65	-2.58
2,544.00	42.40	4.80	2,506.81	148.52	5.63	148.39	9.60	9.38	-3.13
2,575.00	45.50	4.50	2,529.13	169.96	7.37	169.80	10.02	10.00	-0.97
2,607.00	48.40	3.70	2,550.97	193.28	9.04	193.08	9.24	9.06	-2.50
2,638.00	51.30	2.60	2,570.96	216.94	10.34	216.71	9.74	9.35	-3.55
2,670.00	54.00	2.00	2,590.37	242.36	11.36	242.11	8.57	8.44	-1.88
2,701.00	56.60	2.10	2,608.02	267.82	12.27	267.55	8.39	8.39	0.32
2,732.00	59.30	2.50	2,624.47	294.07	13.32	293.78	8.78	8.71	1.29
2,763.00	62.20	3.20	2,639.61	321.09	14.67	320.76	9.56	9.35	2.26
2,794.00	65.00	3.20	2,653.39	348.81	16.22	348.45	9.03	9.03	0.00
2,826.00	67.60	3.10	2,666.26	378.06	17.83	377.67	8.13	8.13	-0.31
2,857.00	70.30	2.60	2,677.39	406.95	19.27	406.53	8.84	8.71	-1.61
2,888.00	73.10	2.10	2,687.12	436.36	20.47	435.91	9.16	9.03	-1.61
2,920.00	75.90	1.20	2,695.67	467.18	21.36	466.71	9.16	8.75	-2.81
2,951.00	78.50	0.90	2,702.54	497.40	21.91	496.91	8.44	8.39	-0.97



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County NM (NAD27 NME)	TVD Reference:	KB @ 3446.00usft (Silver Oak 3)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3446.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1 / Job# 1412162	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (%/100usft)	Build Rate (%/100usft)	Turn Rate (%/100usft)
2,983.00	81.50	0.70	2,708.10	528.91	22.35	528.41	9.40	9.38	-0.63
3,014.00	85.40	1.00	2,711.63	559.70	22.81	559.18	12.62	12.58	0.97
3,045.00	89.00	1.70	2,713.15	590.64	23.54	590.11	11.83	11.61	2.26
3,096.00	92.70	1.80	2,712.39	641.61	25.10	641.04	7.26	7.25	0.20
3,189.00	93.70	1.40	2,707.20	734.42	27.69	733.79	1.16	1.08	-0.43
3,283.00	93.90	1.20	2,700.97	828.19	29.82	827.50	0.30	0.21	-0.21
3,376.00	92.90	1.30	2,695.45	921.01	31.84	920.26	1.08	-1.08	0.11
3,469.00	92.50	1.50	2,691.07	1,013.87	34.11	1,013.08	0.48	-0.43	0.22
3,563.00	92.40	2.50	2,687.05	1,107.73	37.39	1,106.86	1.07	-0.11	1.06
3,656.00	92.90	3.20	2,682.75	1,200.51	42.01	1,199.54	0.92	0.54	0.75
3,750.00	92.00	3.30	2,678.74	1,294.28	47.33	1,293.19	0.96	-0.96	0.11
3,843.00	91.60	3.40	2,675.81	1,387.07	52.76	1,385.87	0.44	-0.43	0.11
3,936.00	91.50	3.40	2,673.30	1,479.87	58.28	1,478.55	0.11	-0.11	0.00
4,029.00	91.60	3.90	2,670.78	1,572.65	64.20	1,571.21	0.55	0.11	0.54
4,122.00	91.50	3.80	2,668.27	1,665.41	70.44	1,663.83	0.15	-0.11	-0.11
4,216.00	91.50	3.90	2,665.81	1,759.16	76.75	1,757.46	0.11	0.00	0.11
4,309.00	92.00	3.60	2,662.97	1,851.92	82.83	1,850.08	0.63	0.54	-0.32
4,403.00	91.90	3.70	2,659.77	1,945.68	88.81	1,943.71	0.15	-0.11	0.11
4,496.00	91.50	3.30	2,657.01	2,038.46	94.48	2,036.38	0.61	-0.43	-0.43
4,589.00	91.20	3.10	2,654.82	2,131.29	99.67	2,129.10	0.39	-0.32	-0.22
4,682.00	92.20	2.50	2,652.06	2,224.14	104.21	2,221.84	1.25	1.08	-0.65
4,776.00	92.20	2.20	2,648.45	2,317.99	108.07	2,315.61	0.32	0.00	-0.32
4,869.00	92.20	1.70	2,644.88	2,410.87	111.23	2,408.41	0.54	0.00	-0.54
4,962.00	92.30	2.60	2,641.23	2,503.73	114.71	2,501.20	0.97	0.11	0.97
5,056.00	92.40	2.90	2,637.38	2,597.54	119.22	2,594.91	0.34	0.11	0.32
5,149.00	92.40	2.50	2,633.48	2,690.35	123.60	2,687.63	0.43	0.00	-0.43
5,243.00	92.40	2.40	2,629.54	2,784.19	127.61	2,781.37	0.11	0.00	-0.11
5,336.00	92.50	0.90	2,625.57	2,877.06	130.29	2,874.18	1.62	0.11	-1.61
5,430.00	91.90	359.60	2,621.96	2,970.99	130.70	2,968.08	1.52	-0.64	-1.38
5,524.00	91.10	359.30	2,619.50	3,064.95	129.79	3,062.05	0.91	-0.85	-0.32
5,617.00	91.30	359.30	2,617.55	3,157.92	128.66	3,155.02	0.22	0.22	0.00
5,711.00	91.20	358.50	2,615.50	3,251.88	126.85	3,249.00	0.86	-0.11	-0.85
5,804.00	91.10	356.80	2,613.63	3,344.78	123.04	3,341.95	1.83	-0.11	-1.83
5,898.00	91.30	355.20	2,611.67	3,438.53	116.49	3,435.81	1.72	0.21	-1.70
5,991.00	91.80	353.10	2,609.15	3,531.01	107.01	3,528.44	2.32	0.54	-2.26
6,084.00	91.70	350.90	2,606.31	3,623.05	94.08	3,620.71	2.37	-0.11	-2.37
6,178.00	91.70	350.10	2,603.52	3,715.72	78.57	3,713.65	0.85	0.00	-0.85
6,271.00	91.60	350.10	2,600.84	3,807.30	62.59	3,805.50	0.11	-0.11	0.00
6,364.00	91.60	350.50	2,598.25	3,898.93	46.92	3,897.41	0.43	0.00	0.43
6,457.00	92.10	351.70	2,595.24	3,990.76	32.54	3,989.49	1.40	0.54	1.29
6,551.00	92.20	352.10	2,591.72	4,083.76	19.31	4,082.71	0.44	0.11	0.43
6,645.00	92.30	352.20	2,588.03	4,176.81	6.48	4,175.98	0.15	0.11	0.11
6,738.00	92.20	352.10	2,584.38	4,268.86	-6.21	4,268.26	0.15	-0.11	-0.11
6,832.00	92.40	351.70	2,580.60	4,361.85	-19.45	4,361.47	0.48	0.21	-0.43



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3446.00usft (Silver Oak 3)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3446.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB17 Job #1412162	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,925.00	92.40	351.50	2,576.71	4,453.77	-33.02	4,453.63	0.21	0.00	-0.22
7,018.00	92.40	351.20	2,572.81	4,545.63	-47.00	4,545.73	0.32	0.00	-0.32
7,113.00	92.50	350.90	2,568.75	4,639.39	-61.76	4,639.74	0.33	0.11	-0.32
7,201.00	92.90	350.50	2,564.61	4,726.14	-75.97	4,726.74	0.64	0.45	-0.45
Last Phoenix MWD Survey									
7,261.00	92.90	350.50	2,561.57	4,785.24	-85.86	4,786.01	0.00	0.00	0.00
Projection to TD									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,036.00	2,035.90	1.32	-13.60	Tie-on to VES Gyro Survey
2,077.00	2,076.89	1.70	-13.66	First Phoenix MWD Survey
7,201.00	2,564.61	4,726.14	-75.97	Last Phoenix MWD Survey
7,261.00	2,561.57	4,785.24	-85.86	Projection to TD

Checked By: _____ Approved By: _____ Date: _____