

January 13, 2015

30015 426 44

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: Pilum 15 Fee No 002H

Please find enclosed a copy of the survey from 0.00' to 1949.00' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,



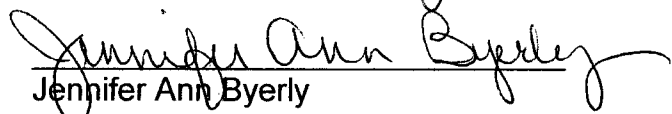
Keith Havelka
Operations

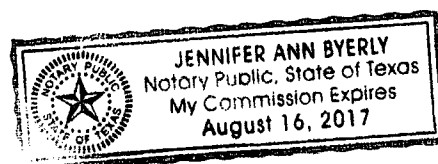
STATE OF TEXAS §

§

COUNTY OF NUECES §

This instrument was acknowledged before me on the 13 day of January,
A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: COG Operating
Lease/Well: Pilum 15 Fee/No 002H

Rig Name: Silver Oak 3
State/County: New Mexico/Eddy
Latitude: 32.74, Longitude: -104.38
GRID North is 0.02 Degrees West of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 17 feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 1/13/2015 / 15:12

VES Survey International
Midland, Texas
432-563-5444

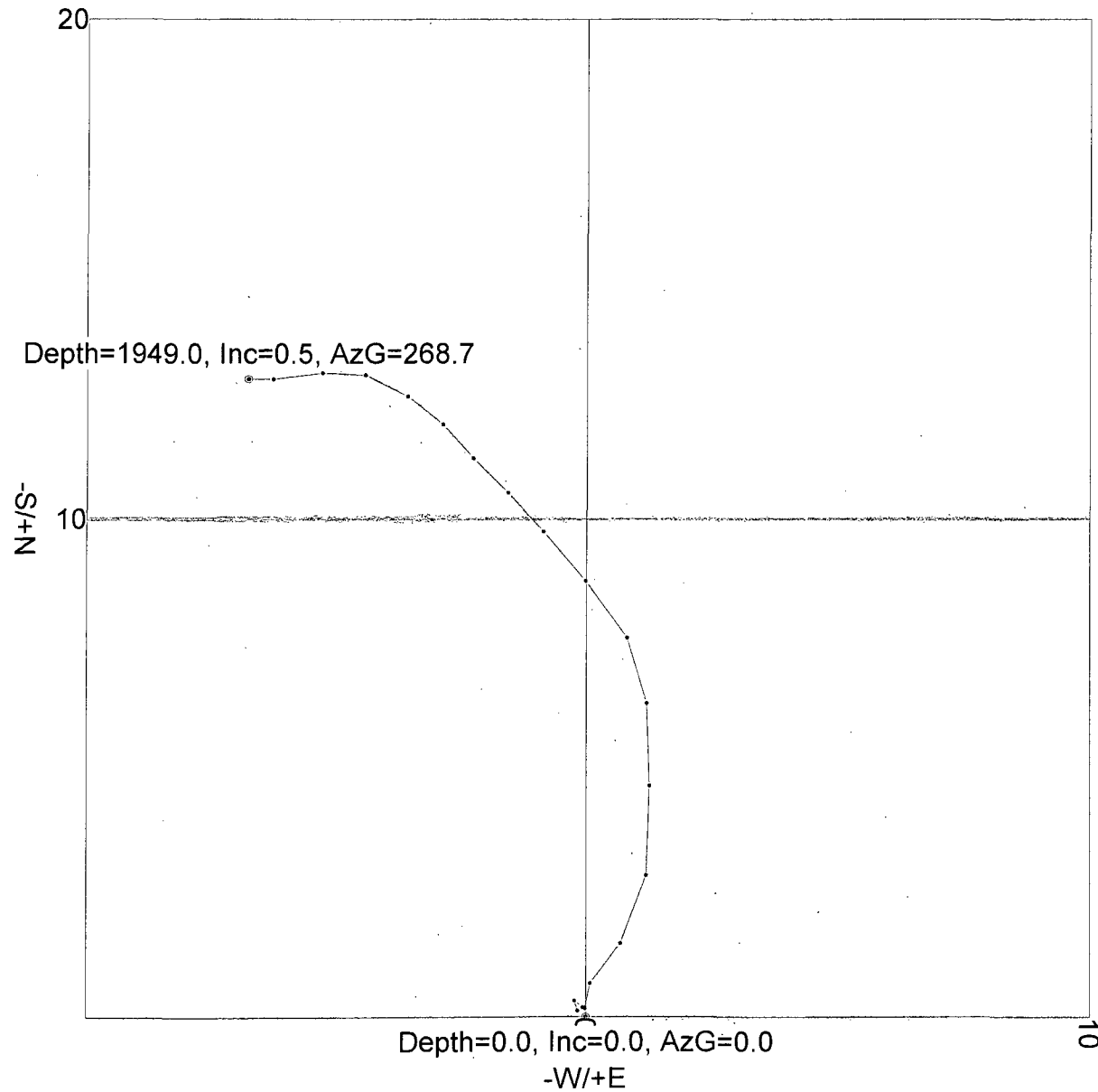
Surveyor: Adam Askew
Pilum 15 Fee No 002H / API 30-015-42644

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	0.23	307.33	100.00	0.12	-0.16	0.12	0.20	307.33	0.23
200.00	0.14	52.41	200.00	0.32	-0.23	0.32	0.39	324.85	0.30
300.00	0.25	162.32	300.00	0.19	-0.06	0.19	0.20	341.51	0.33
400.00	0.22	354.03	400.00	0.17	-0.02	0.17	0.17	354.73	0.47
500.00	0.38	21.00	500.00	0.67	0.08	0.67	0.68	7.01	0.21
600.00	0.79	44.29	599.99	1.48	0.68	1.48	1.63	24.82	0.47
700.00	1.00	1.87	699.98	2.84	1.19	2.84	3.08	22.74	0.68
800.00	1.06	2.16	799.96	4.65	1.26	4.65	4.81	15.12	0.06
900.00	0.85	353.06	899.95	6.31	1.20	6.31	6.42	10.79	0.26
1000.00	0.75	332.25	999.94	7.62	0.81	7.62	7.66	6.04	0.30
1100.00	0.87	317.26	1099.93	8.76	-0.01	8.76	8.76	359.91	0.24
1200.00	0.62	323.45	1199.92	9.75	-0.85	9.75	9.79	355.01	0.26
1300.00	0.60	311.33	1299.92	10.53	-1.56	10.53	10.64	351.55	0.13
1400.00	0.53	319.53	1399.91	11.22	-2.25	11.22	11.45	348.64	0.10
1500.00	0.51	316.12	1499.91	11.89	-2.86	11.89	12.23	346.47	0.04
1600.00	0.53	301.14	1599.90	12.45	-3.57	12.45	12.96	344.01	0.14
1700.00	0.56	292.19	1699.90	12.88	-4.42	12.88	13.61	341.07	0.09
1800.00	0.49	250.45	1799.90	12.92	-5.27	12.92	13.95	337.81	0.38

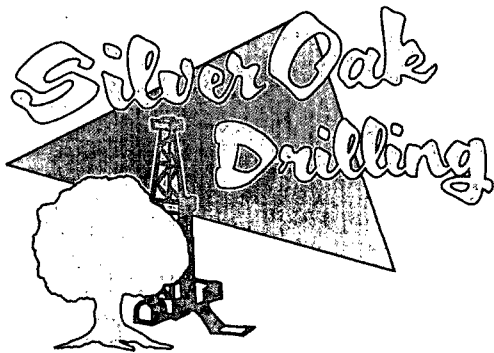
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.66	271.86	1899.89	12.80	-6.25	12.80	14.24	333.98	0.27
1949.00	0.54	268.71	1948.89	12.80	-6.76	12.80	14.47	332.17	0.25



VES Survey International
Midland, Texas
432-563-5444
Surveyor: Adam Askew
Pilum 15 Fee No 002H / API 30-015-42644



VES Survey Date: 12/23/2014



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

January 5, 2015

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

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 20 2015

RECEIVED

RE: Pilum 15 Fee #2H
789' FSL & 450' FEL
Sec. 16, T18S, R26E
Eddy County, New Mexico

Dear Sir,

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

Very truly yours,

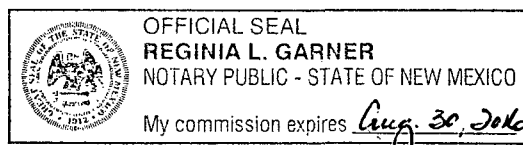
A handwritten signature in cursive script, appearing to read "Chris Graham".

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 5th day of January, 2015.

A handwritten signature in cursive script, appearing to read "Regina L. Garner".

Notary Public

PILUM 15 FEE #2H

Date	Depth	Deviation	Direction
12/20/2014	138	0.30	63.00
12/20/2014	262	0.30	335.50
12/20/2014	353	0.40	335.90
12/20/2014	445	0.50	351.50
12/20/2014	533	0.70	353.50
12/20/2014	620	0.80	2.90
12/20/2014	710	0.80	6.80
12/20/2014	833	0.90	2.90
12/20/2014	926	0.90	329.70
12/20/2014	1020	0.90	330.50
12/21/2014	1115	0.90	317.60
12/22/2014	1281	0.60	314.00
12/22/2014	1375	0.20	323.10
12/23/2014	1470	0.40	332.40
12/23/2014	1564	0.40	311.70
12/23/2014	1658	0.40	293.10
12/23/2014	1752	0.40	259.40
12/23/2014	1845	0.50	277.10
12/23/2014	1939	0.40	255.70
12/23/2014	2028	0.60	271.80
12/23/2014	2091	0.70	259.70
12/23/2014	2123	2.50	110.30
12/23/2014	2155	7.10	102.80
12/23/2014	2185	11.20	99.60
12/23/2014	2216	15.50	94.40
12/23/2014	2247	17.80	107.40
12/24/2014	2436	37.50	99.70
12/24/2014	2467	41.20	99.20
12/24/2014	2499	44.70	97.20
12/24/2014	2530	47.50	93.50
12/24/2014	2562	50.10	93.60
12/24/2014	2594	52.70	93.70
12/24/2014	2690	59.50	94.80
12/24/2014	2721	61.30	95.10
12/24/2014	2753	64.10	95.00
12/24/2014	2784	66.30	95.10
12/24/2014	2816	69.60	95.70
12/24/2014	2848	72.10	95.90
12/24/2014	2973	81.20	98.00
12/24/2014	3005	83.80	97.60
12/24/2014	3037	86.60	96.50
12/26/2014	3088	90.50	95.50
12/26/2014	3246	91.10	95.20

Date	Depth	Deviation	Direction
12/26/2014	3340	91.30	94.90
12/26/2014	3435	91.90	95.20
12/26/2014	3529	92.70	98.80
12/26/2014	3551	91.20	95.60
12/27/2014	3623	92.70	96.50
12/27/2014	3718	91.70	99.20
12/27/2014	3811	90.80	102.30
12/27/2014	3905	88.00	104.20
12/27/2014	4000	83.30	102.80
12/27/2014	4095	81.30	98.30
12/27/2014	4189	81.10	94.70
12/27/2014	4283	84.40	90.50
12/27/2014	4379	88.00	88.50
12/28/2014	4473	92.80	88.30
12/28/2014	4567	98.00	89.70
12/28/2014	4661	98.50	92.10
12/28/2014	4755	100.10	94.70
12/28/2014	4850	98.30	98.60
12/28/2014	4945	93.90	98.90
12/28/2014	5039	89.90	99.50
12/29/2014	5134	85.60	98.70
12/29/2014	5228	84.10	96.00
12/29/2014	5418	87.40	92.20
12/29/2014	5512	92.10	90.30
12/29/2014	5607	97.10	92.90
12/29/2014	5702	96.80	94.60
12/30/2014	5797	96.70	96.30
12/30/2014	5891	97.20	98.70
12/30/2014	5987	94.90	99.20
12/30/2014	6081	92.50	101.50
12/30/2014	6176	91.20	100.20
12/30/2014	6272	87.20	103.30
12/30/2014	6367	83.60	101.60
12/31/2014	6461	79.30	100.10
# EOF			



COG Operating LLC

Eddy County, NM (NAD27 NME)

Pilum 15 Fee

#2H

WB1 / Job #1412542

Design: Surveys (Silver Oak 3)

Standard Survey Report

05 January, 2015

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 @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1 / Job #1412542	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	Pilum 15 Fee		
Site Position:		Northing:	632,879.50 usft
From:	Map	Easting:	487,958.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 44' 23.54811 N
		Longitude:	104° 22' 20.97828 W
		Grid Convergence:	-0.02 °

Well	#2H		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 44' 33.88168 N
		Longitude:	104° 22' 45.36216 W
		Ground Level:	3,356.00 usft

Wellbore	WB1 / Job #1412542		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	11/25/2014	7.57
			Dip Angle
			(°)
			Field Strength
			(nT)
			60.44
			48,495

Design	Surveys (Silver Oak 3)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			96.29

Survey Program	Date: 1/5/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	1,949.00	VES Gyro Survey (WB1 / Job #1412542)	NS-GYRO-MS
1,994.00	6,535.00	Phoenix MWD Surveys (WB1 / Job #1412)	PHX+MWD+IGRF
			Description
			North sensing gyrocompassing m/s
			PHX+MWD+IGRF v3: standard declination

Survey									
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.23	307.33	100.00	0.12	-0.16	-0.17	0.23	0.23	0.00
200.00	0.14	52.41	200.00	0.32	-0.22	-0.26	0.30	-0.09	105.08
300.00	0.25	162.32	300.00	0.18	-0.06	-0.08	0.33	0.11	109.91
400.00	0.22	354.03	400.00	0.17	-0.01	-0.03	0.47	-0.03	-168.29
500.00	0.38	21.00	500.00	0.67	0.09	0.01	0.21	0.16	26.97
600.00	0.79	44.29	599.99	1.47	0.69	0.52	0.47	0.41	23.29
700.00	1.00	1.87	699.98	2.84	1.20	0.88	0.68	0.21	-42.42
800.00	1.06	2.16	799.96	4.63	1.26	0.74	0.06	0.06	0.29
900.00	0.85	353.06	899.95	6.29	1.20	0.51	0.26	-0.21	-9.10



Survey Report



Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1 // Job #1412542	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	0.75	332.25	999.94	7.61	0.81	-0.03	0.31	-0.10	-20.81
1,100.00	0.87	317.26	1,099.93	8.75	-0.01	-0.97	0.24	0.12	-14.99
1,200.00	0.62	323.45	1,199.92	9.74	-0.85	-1.91	0.26	-0.25	6.19
1,300.00	0.60	311.33	1,299.92	10.52	-1.56	-2.71	0.13	-0.02	-12.12
1,400.00	0.53	319.53	1,399.91	11.22	-2.26	-3.47	0.11	-0.07	8.20
1,500.00	0.51	316.12	1,499.91	11.89	-2.86	-4.15	0.04	-0.02	-3.41
1,600.00	0.53	301.14	1,599.90	12.45	-3.57	-4.91	0.14	0.02	-14.98
1,700.00	0.56	292.19	1,699.90	12.87	-4.42	-5.80	0.09	0.03	-8.95
1,800.00	0.49	250.45	1,799.90	12.91	-5.27	-6.66	0.38	-0.07	-41.74
1,900.00	0.66	271.86	1,899.89	12.79	-6.25	-7.62	0.27	0.17	21.41
1,949.00	0.54	268.71	1,948.89	12.79	-6.76	-8.13	0.25	-0.24	-6.43
Tie-In to VES Survey									
1,994.00	0.70	265.10	1,993.89	12.77	-7.25	-8.61	0.37	0.36	-8.02
First Phoenix MWD Survey									
2,028.00	0.60	271.80	2,027.88	12.75	-7.64	-8.99	0.37	-0.29	19.71
2,060.00	0.60	276.70	2,059.88	12.78	-7.97	-9.32	0.16	0.00	15.31
2,091.00	0.70	259.70	2,090.88	12.76	-8.32	-9.66	0.70	0.32	-54.84
2,123.00	2.50	110.30	2,122.87	12.49	-7.85	-9.17	9.76	5.63	-466.88
2,155.00	7.10	102.80	2,154.75	11.81	-5.27	-6.53	14.48	14.38	-23.44
2,185.00	11.20	99.60	2,184.36	10.91	-0.59	-1.78	13.77	13.67	-10.67
2,216.00	15.50	94.40	2,214.52	10.09	6.52	5.37	14.39	13.87	-16.77
2,247.00	17.80	107.50	2,244.23	8.34	15.17	14.16	14.16	7.42	42.26
2,279.00	20.30	104.10	2,274.47	5.52	25.22	24.46	8.54	7.81	-10.63
2,310.00	23.10	101.30	2,303.27	3.02	36.40	35.85	9.63	9.03	-9.03
2,342.00	27.00	103.80	2,332.26	0.06	49.62	49.31	12.63	12.19	7.81
2,373.00	31.20	103.30	2,359.34	-3.47	64.27	64.26	13.57	13.55	-1.61
2,405.00	34.20	102.00	2,386.27	-7.25	81.14	81.44	9.63	9.38	-4.06
2,436.00	37.50	99.70	2,411.39	-10.65	98.97	99.54	11.50	10.65	-7.42
2,468.00	41.20	97.20	2,436.13	-13.62	119.03	119.81	12.58	11.56	-7.81
2,499.00	44.70	94.60	2,458.82	-15.77	140.04	140.92	12.65	11.29	-8.39
2,530.00	47.50	93.50	2,480.32	-17.34	162.31	163.24	9.39	9.03	-3.55
2,562.00	50.10	93.60	2,501.39	-18.83	186.34	187.28	8.13	8.13	0.31
2,594.00	52.70	93.70	2,521.36	-20.43	211.30	212.26	8.13	8.13	0.31
2,625.00	54.90	94.30	2,539.66	-22.17	236.25	237.26	7.27	7.10	1.94
2,657.00	57.30	94.70	2,557.51	-24.26	262.73	263.80	7.57	7.50	1.25
2,689.00	59.50	94.80	2,574.28	-26.51	289.89	291.05	6.88	6.88	0.31
2,721.00	61.30	95.10	2,590.08	-28.92	317.61	318.86	5.68	5.63	0.94
2,753.00	64.10	95.00	2,604.76	-31.42	345.93	347.29	8.75	8.75	-0.31
2,784.00	66.30	95.10	2,617.76	-33.90	373.96	375.42	7.10	7.10	0.32
2,816.00	69.60	95.70	2,629.77	-36.69	403.48	405.07	10.46	10.31	1.88
2,848.00	72.10	95.90	2,640.27	-39.74	433.56	435.30	7.83	7.81	0.63
2,879.00	74.00	96.20	2,649.30	-42.87	463.04	464.95	6.20	6.13	0.97
2,910.00	76.20	96.80	2,657.28	-46.26	492.80	494.91	7.34	7.10	1.94



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1 / Job #1412542	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	Compass 5000 GCR

Survey									
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)
2,942.00	78.10	97.50	2,664.39	-50.14	523.76	526.10	6.31	5.94	2.19
2,973.00	81.20	98.00	2,669.96	-54.26	553.97	556.58	10.13	10.00	1.61
3,005.00	83.80	97.60	2,674.14	-58.56	585.40	588.29	8.22	8.13	-1.25
3,037.00	86.60	96.50	2,676.81	-62.47	617.05	620.18	9.40	8.75	-3.44
3,088.00	90.50	95.50	2,678.10	-67.80	667.74	671.15	7.89	7.65	-1.96
3,151.00	91.20	95.60	2,677.17	-73.89	730.44	734.14	1.12	1.11	0.16
3,246.00	91.10	95.20	2,675.26	-82.83	825.00	829.10	0.43	-0.11	-0.42
3,340.00	91.30	94.90	2,673.30	-91.11	918.61	923.06	0.38	0.21	-0.32
3,435.00	91.90	95.20	2,670.64	-99.46	1,013.20	1,018.00	0.71	0.63	0.32
3,529.00	92.70	95.80	2,666.87	-108.47	1,106.69	1,111.92	1.06	0.85	0.64
3,623.00	92.70	96.50	2,662.44	-118.53	1,200.05	1,205.81	0.74	0.00	0.74
3,718.00	91.70	99.20	2,658.79	-131.49	1,294.08	1,300.70	3.03	-1.05	2.84
3,811.00	90.80	102.30	2,656.77	-148.83	1,385.41	1,393.38	3.47	-0.97	3.33
3,905.00	88.00	104.20	2,657.75	-170.37	1,476.89	1,486.67	3.60	-2.98	2.02
4,000.00	83.30	102.80	2,664.95	-192.48	1,568.97	1,580.62	5.16	-4.95	-1.47
4,095.00	81.30	98.30	2,677.69	-209.72	1,661.49	1,674.47	5.14	-2.11	-4.74
4,189.00	81.10	94.70	2,692.07	-220.24	1,753.77	1,767.35	3.79	-0.21	-3.83
4,283.00	84.40	90.50	2,703.94	-224.45	1,846.89	1,860.37	5.65	3.51	-4.47
4,379.00	88.00	88.50	2,710.30	-223.61	1,942.66	1,955.46	4.29	3.75	-2.08
4,473.00	92.80	88.30	2,709.65	-220.99	2,036.59	2,048.54	5.11	5.11	-0.21
4,567.00	98.00	89.70	2,700.80	-219.35	2,130.13	2,141.33	5.73	5.53	1.49
4,661.00	98.50	92.10	2,687.31	-220.81	2,223.13	2,233.94	2.58	0.53	2.55
4,755.00	100.10	94.70	2,672.12	-226.31	2,315.72	2,326.58	3.22	1.70	2.77
4,850.00	98.30	98.60	2,656.93	-237.17	2,408.85	2,420.33	4.47	-1.89	4.11
4,945.00	93.90	98.90	2,646.83	-251.54	2,502.19	2,514.68	4.64	-4.63	0.32
5,039.00	89.90	99.50	2,643.72	-266.56	2,594.91	2,608.49	4.30	-4.26	0.64
5,134.00	85.60	98.70	2,647.45	-281.57	2,688.62	2,703.28	4.60	-4.53	-0.84
5,228.00	84.10	96.00	2,655.88	-293.55	2,781.46	2,796.87	3.28	-1.60	-2.87
5,323.00	83.50	92.40	2,666.15	-300.47	2,875.63	2,891.24	3.82	-0.63	-3.79
5,418.00	87.40	92.20	2,673.68	-304.26	2,970.24	2,985.69	4.11	4.11	-0.21
5,512.00	92.10	90.30	2,674.09	-306.31	3,064.18	3,079.30	5.39	5.00	-2.02
5,607.00	97.10	92.90	2,666.47	-308.95	3,158.80	3,173.63	5.93	5.26	2.74
5,702.00	96.80	94.60	2,654.98	-315.12	3,252.90	3,267.84	1.80	-0.32	1.79
5,797.00	96.70	96.30	2,643.81	-324.08	3,346.81	3,362.17	1.78	-0.11	1.79
5,891.00	97.20	98.70	2,632.44	-336.25	3,439.31	3,455.45	2.59	0.53	2.55
5,987.00	94.90	99.20	2,622.32	-351.11	3,533.61	3,550.80	2.45	-2.40	0.52
6,081.00	92.50	101.50	2,616.25	-367.96	3,625.87	3,644.36	3.53	-2.55	2.45
6,176.00	91.20	100.20	2,613.19	-385.83	3,719.12	3,739.01	1.93	-1.37	-1.37
6,272.00	87.20	103.30	2,614.53	-405.37	3,813.07	3,834.53	5.27	-4.17	3.23
6,367.00	83.60	101.60	2,622.14	-425.79	3,905.52	3,928.66	4.19	-3.79	-1.79
6,461.00	79.30	100.10	2,636.12	-443.29	3,996.79	4,021.29	4.84	-4.57	-1.60
Final Phoenix MWD Survey									
6,535.00	79.30	100.10	2,649.86	-456.04	4,068.37	4,093.85	0.00	0.00	0.00
Projection to TD									



Survey Report



Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well: #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid:
Wellbore:	WB1- / Job #1412542	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)
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Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,949.00	1,948.89	12.79	-6.76	Tie-In to VES Survey
1,994.00	1,993.89	12.77	-7.25	First Phoenix MWD Survey
6,461.00	2,636.12	-443.29	3,996.79	Final Phoenix MWD Survey
6,535.00	2,649.86	-456.04	4,068.37	Projection to TD

Checked By: _____ Approved By: _____ Date: _____