



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

15- 4/665

May 1, 2014

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 25 2014

RECEIVED

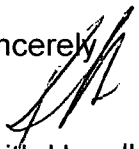
Attn: Kanicia Castillo

Re: **Paint 32 Fee No 002H**

Please find enclosed a copy of the survey from 0' to 2,200' ran on the above referenced well.

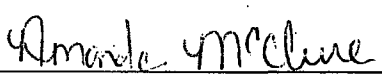
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

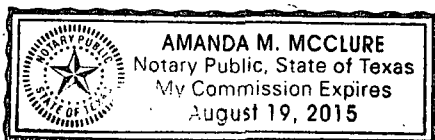
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 1 day of May,
A.D., 2014, by Keith Havelka.


Amanda McClure
Notary Public, State of Texas



Company: COG Operating-Concho

Well: Paint 32 Fee No 002H



Rig Name: Silver Oak 3

State/County: New Mexico/Eddy

Latitude: 32.701, Longitude: -104.412

GRID North is 0.000 Degrees West of True North

VS-Azi: 0.000 Degrees



Depth Reference : RKB= 17 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: eline survey-de_01.ut

Minimum Curvature Method

Report Date/Time: 5/1/2014 / 13:56

Vaughn Energy Services

Henderson, Colorado

866-835-8333

Surveyor: Randy Holcomb

Paint 32 Fee No 002H / API 30-015-41665

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 25 2014
RECEIVED

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
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	****
100.000	0.252	223.600	100.000	-0.159	-0.152	-0.159	0.220	223.600	0.252
200.000	0.220	222.269	199.999	-0.461	-0.433	-0.461	0.632	223.195	0.032
300.000	0.479	245.090	299.997	-0.779	-0.941	-0.779	1.222	230.378	0.289
400.000	0.524	234.118	399.993	-1.223	-1.691	-1.223	2.087	234.114	0.106
500.000	1.041	292.178	499.985	-1.149	-2.903	-1.149	3.122	248.406	0.883
600.000	0.970	295.620	599.969	-0.440	-4.507	-0.440	4.528	264.425	0.093
700.000	1.140	293.908	699.952	0.329	-6.180	0.329	6.188	273.050	0.172
800.000	1.297	287.509	799.930	1.073	-8.168	1.073	8.238	277.483	0.208
900.000	1.275	286.195	899.905	1.724	-10.316	1.724	10.459	279.486	0.037
1000.000	1.043	308.809	999.885	2.604	-12.094	2.604	12.371	282.153	0.508
1100.000	1.206	297.723	1099.865	3.665	-13.735	3.665	14.215	284.939	0.271
1200.000	0.963	293.238	1199.847	4.486	-15.438	4.486	16.077	286.202	0.258
1300.000	0.824	283.877	1299.835	4.990	-16.909	4.990	17.630	286.441	0.201
1400.000	0.948	278.570	1399.823	5.286	-18.425	5.286	19.168	286.006	0.148
1500.000	1.140	294.092	1499.807	5.815	-20.151	5.815	20.973	286.096	0.340
1600.000	1.226	284.382	1599.786	6.486	-22.095	6.486	23.028	286.361	0.218
1700.000	1.100	290.715	1699.765	7.092	-24.029	7.092	25.054	286.443	0.179
1800.000	0.833	278.011	1799.751	7.533	-25.647	7.533	26.730	286.368	0.341

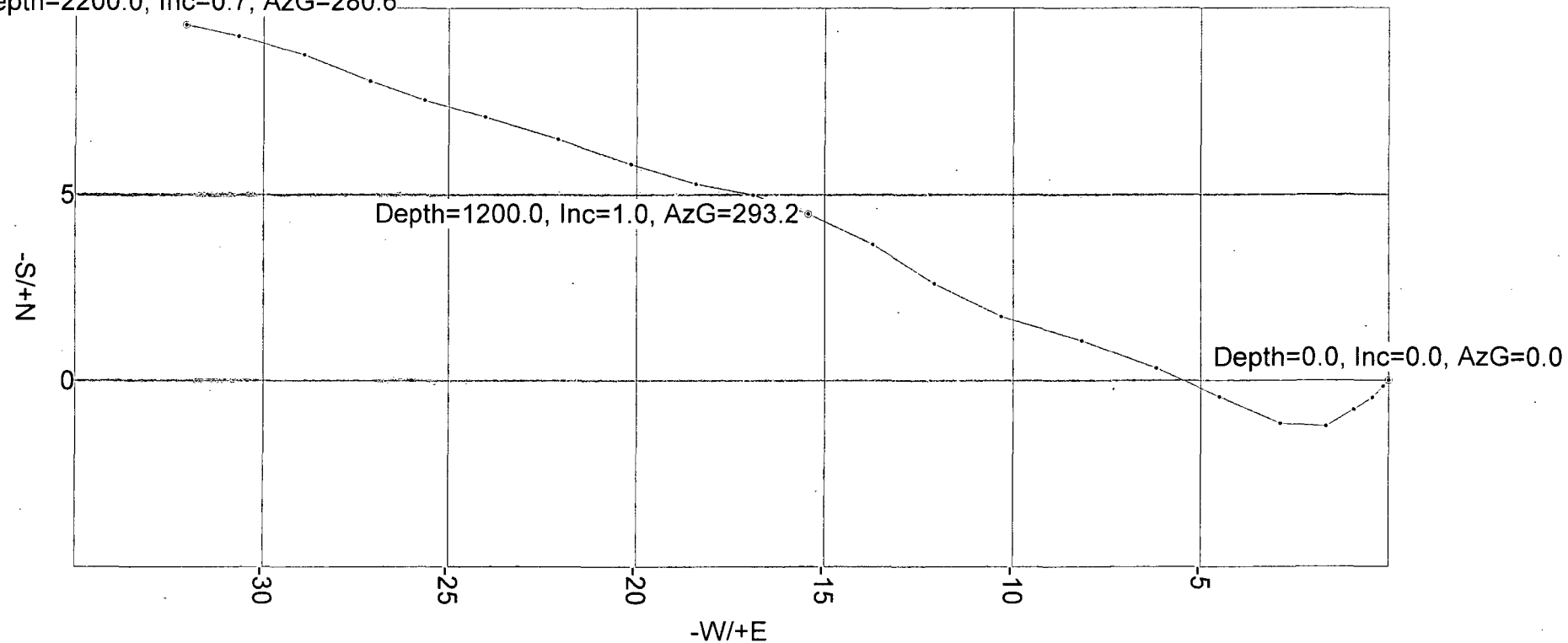
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.000	1.001	297.725	1899.738	8.041	-27.140	8.041	28.306	286.502	0.355
2000.000	1.196	286.860	1999.720	8.750	-28.912	8.750	30.207	286.837	0.284
2100.000	0.900	283.823	2099.703	9.240	-30.673	9.240	32.035	286.764	0.301
2200.000	0.735	280.600	2199.693	9.545	-32.066	9.545	33.457	286.577	0.172



Vaughn Energy Services
Henderson, Colorado
866-835-8333
Surveyor: Randy Holcomb
Paint 32 Fee No 002H / API 30-015-41665



Depth=2200.0, Inc=0.7, AzG=280.6





PHOENIX
TECHNOLOGY SERVICES

May 5, 2014

COG Operating LLC
Concho Resources Inc.
Attention: Regulatory Department
550 W. Texas Ave., Suite 100
Midland, Texas 79701

Re: Concho Resources Inc.
Paint 32 Fee #2H
Eddy Co., NM
API #30-015-42004
Job No. 1410475

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 25 2014
RECEIVED

Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the survey certification, surveys, and lease plat for the above referenced well with the State of New Mexico Oil Conservation Division – District 2 via certified mail. A copy of the filing is attached for your records.

Name of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Cory Black	2H	2,287	7,339	04/13/2014	04/21/2014	MWD

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

Dana Robinson

Dana Robinson
Operations Administrator

PHOENIX TECHNOLOGY SERVICES SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1410475

OPERATOR COG Operating LLC

WELL NAME Paint 32 Fee #2H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER 30-015-42004

PROPOSED DIRECTION 89.47

TIE-IN DATA

MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
2,200 ft	2,199.69 ft	0.74	280.6	9.55	-32.066	VES GYRO

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
13-Apr-14	2,287 ft	0.7	287.1

SURVEY INSTRUMENT
TYPE

PHOENIX MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
21-Apr-14	7,339 ft	89.8	90

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
21-Apr-14	7,409 ft	89.8	90

Cory Black

PRINT YOUR NAME ABOVE

Cory Black

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.71
DECLINATION OR GRID	Grid

4/21/2014

TODAY'S DATE

MWD SUPERVISOR 1

Cory Black

DIRECTIONAL DRILLER 1

Stewart Guillory

MWD SUPERVISOR 2

Buck Johnson

DIRECTIONAL DRILLER 2

Wade Elliot

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax (505) 393-0720

DISTRICT II
811 S. Third St., Artesia, NM 88210
Phone (505) 748-1283 Fax (505) 748-9020

DISTRICT III
1000 Rio Pecos Blvd., Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

DAMENDED REPORT

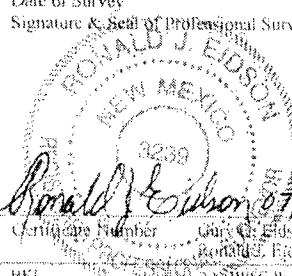
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name PAINT 32 FEE	Well Number 2H
GRID No.	Operator Name COG OPERATING, LLC	Elevation 3400'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	32	18-S	26-E		1670	SOUTH	190	WST	EDDY

Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	32	18-S	26-E		1670	SOUTH	330	EAST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=618870.8 N X=475874.3 E LAT.=32.701349° N LONG.=104.411762° W BOTTOM HOLE LOCATION Y=618900.4 N X=480640.9 E				CORNER COORDINATES TABLE A - Y=619876.5 N, X=475978.4 E B - Y=619898.9 N, X=480969.1 E C - Y=618565.9 N, X=480971.3 E D - Y=618538.3 N, X=475686.4 E				OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature _____ Date _____ Printed Name _____ E-mail Address _____
A 190' S.L. 330' 1670' D				B 330' B.H. 1670' C				SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JULY 15, 2013 Date of Survey Signature & Seal of Professional Surveyor:  Ronald J. Eidson 07/18/2013 Certificate Number: Gary C. Eidson 12641, Ronald J. Eidson 3239 BLU TWSC W.D. 13 11 0794



COG Operating LLC

Eddy County, NM (NAD27 NME)

Paint 32 Fee

#2H

WB1/Job #1410475

Survey: Phoenix MWD Survey

Standard Survey Report

21 April, 2014





Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3418.00usft (Silver Oak 3)
Site:	Paint 32 Fee	MD Reference:	KB @ 3418.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1/Job #1410475	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	GCR DB

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	Paint 32 Fee		
Site Position:		Northing:	618,870.80 usft
From:	Map	Easting:	475,874.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 42' 4.85746 N
		Longitude:	104° 24' 42.34441 W
		Grid Convergence:	-0.04 °

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° 42' 4.85746 N
		Longitude:	104° 24' 42.34441 W
		Ground Level:	3,400.00 usft

Wellbore	WB1/Job #1410475		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	04/07/14	(°)
			7.66
			Dip Angle
			(°)
			60.41
			Field Strength
			(nT)
			48,530

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
			(°)
			89.47

Survey Program	Date: 04/21/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	2,200.00	VES Gyro Surveys (WB1/Job #1410475)	CB-MAG-MS
2,287.00	7,409.00	Phoenix MWD Survey (WB1/Job #141047	MWD
			Description
			Camera based mag multi shot
			MWD - Standard

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)	
2,200.00	0.74	280.60	2,199.69	9.55	-32.07	-31.98	0.00	0.00	0.00	
Tie-on to VES Gyro										
2,287.00	0.70	278.10	2,286.69	9.72	-33.14	-33.05	0.05	-0.04	-2.87	
First Phoenix MWD Survey										
2,318.00	0.90	280.70	2,317.68	9.80	-33.57	-33.47	0.66	0.65	8.39	
2,349.00	0.60	89.50	2,348.68	9.84	-33.64	-33.55	4.82	-0.97	544.52	
2,381.00	6.30	78.30	2,380.61	10.20	-31.76	-31.66	17.85	17.81	-35.00	
2,412.00	12.20	77.10	2,411.19	11.28	-26.89	-26.79	19.04	19.03	-3.87	
2,443.00	17.80	77.00	2,441.13	13.08	-19.08	-18.96	18.06	18.06	-0.32	



Phoenix Technology Services
Survey Report



Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Paint 32 Fee
Well: #2H
Wellbore: WB1/Job #1410475
Design: Surveys (Silver Oak 3)

Local Co-ordinate Reference: Well #2H
TVD Reference: KB @ 3418.00usft (Silver Oak 3)
MD Reference: KB @ 3418.00usft (Silver Oak 3)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB

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)
2,473.00	22.00	81.40	2,469.33	14.95	-9.05	-8.91	14.85	14.00	14.67
2,505.00	25.40	84.70	2,498.63	16.48	3.72	3.87	11.40	10.63	10.31
2,536.00	28.80	86.70	2,526.22	17.52	17.80	17.96	11.35	10.97	6.45
2,568.00	32.20	86.90	2,553.79	18.43	34.01	34.18	10.63	10.63	0.63
2,599.00	35.60	86.60	2,579.52	19.41	51.27	51.45	10.98	10.97	-0.97
2,630.00	38.40	88.20	2,604.27	20.25	69.90	70.09	9.55	9.03	5.16
2,661.00	41.50	88.90	2,628.03	20.75	89.80	89.99	10.10	10.00	2.26
2,692.00	43.70	89.40	2,650.85	21.06	110.78	110.97	7.18	7.10	1.61
2,723.00	46.20	90.10	2,672.79	21.15	132.68	132.87	8.22	8.06	2.26
2,755.00	48.20	90.30	2,694.53	21.07	156.16	156.34	6.27	6.25	0.63
2,786.00	50.20	90.70	2,714.79	20.86	179.62	179.81	6.53	6.45	1.29
2,817.00	52.00	91.30	2,734.25	20.44	203.74	203.92	6.00	5.81	1.94
2,848.00	53.60	92.20	2,752.99	19.68	228.42	228.59	5.66	5.16	2.90
2,880.00	55.10	92.30	2,771.64	18.66	254.40	254.56	4.69	4.69	0.31
2,911.00	56.80	92.30	2,789.00	17.63	280.07	280.22	5.48	5.48	0.00
2,942.00	58.80	91.80	2,805.52	16.69	306.28	306.42	6.59	6.45	-1.61
2,973.00	60.50	90.70	2,821.18	16.11	333.02	333.16	6.28	5.48	-3.55
3,004.00	62.50	89.20	2,835.97	16.14	360.26	360.40	7.73	6.45	-4.84
3,035.00	64.40	88.50	2,849.83	16.70	387.99	388.13	6.45	6.13	-2.26
3,066.00	66.10	88.40	2,862.81	17.46	416.13	416.27	5.49	5.48	-0.32
3,097.00	68.10	88.50	2,874.87	18.23	444.67	444.82	6.46	6.45	0.32
3,128.00	70.90	88.40	2,885.73	19.02	473.70	473.85	9.04	9.03	-0.32
3,160.00	74.20	88.20	2,895.32	19.92	504.21	504.37	10.33	10.31	-0.63
3,191.00	77.90	88.10	2,902.79	20.89	534.27	534.44	11.94	11.94	-0.32
3,222.00	80.10	88.50	2,908.71	21.80	564.69	564.86	7.21	7.10	1.29
3,253.00	82.60	88.10	2,913.37	22.71	595.32	595.50	8.16	8.06	-1.29
3,285.00	84.20	89.60	2,917.05	23.34	627.10	627.29	6.83	5.00	4.69
3,316.00	86.20	90.60	2,919.64	23.29	657.99	658.17	7.21	6.45	3.23
3,337.00	86.60	92.30	2,920.96	22.76	678.94	679.12	8.30	1.90	8.10
3,368.00	86.80	93.10	2,922.74	21.30	709.85	710.02	2.66	0.65	2.58
3,399.00	86.80	93.50	2,924.48	19.52	740.75	740.90	1.29	0.00	1.29
3,431.00	86.40	92.80	2,926.37	17.76	772.65	772.78	2.52	-1.25	-2.19
3,462.00	85.90	92.30	2,928.45	16.39	803.55	803.66	2.28	-1.61	-1.61
3,493.00	85.90	92.20	2,930.67	15.17	834.44	834.55	0.32	0.00	-0.32
3,524.00	86.00	92.30	2,932.86	13.96	865.34	865.43	0.46	0.32	0.32
3,555.00	85.40	90.50	2,935.18	13.20	896.24	896.33	6.11	-1.94	-5.81
3,586.00	85.00	89.70	2,937.78	13.15	927.14	927.22	2.88	-1.29	-2.58
3,617.00	84.50	88.80	2,940.62	13.55	958.00	958.09	3.31	-1.61	-2.90
3,648.00	84.50	88.40	2,943.59	14.31	988.85	988.94	1.28	0.00	-1.29
3,742.00	85.30	86.50	2,951.94	18.47	1,082.38	1,082.51	2.19	0.85	-2.02
3,836.00	86.00	85.30	2,959.07	25.18	1,175.87	1,176.05	1.47	0.74	-1.28
3,929.00	87.00	85.00	2,964.75	33.02	1,268.36	1,268.61	1.12	1.08	-0.32
4,023.00	88.30	84.30	2,968.61	41.78	1,361.87	1,362.20	1.57	1.38	-0.74



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3418.00usft (Silver Oak 3)
Site:	Paint 32 Fee	MD Reference:	KB @ 3418.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1/Job #1410475	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	GCR DB

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)
4,117.00	89.30	84.40	2,970.57	51.03	1,455.39	1,455.80	1.07	1.06	0.11
4,210.00	90.60	85.70	2,970.65	59.06	1,548.04	1,548.52	1.98	1.40	1.40
4,305.00	91.10	86.60	2,969.25	65.44	1,642.81	1,643.35	1.08	0.53	0.95
4,398.00	91.30	87.30	2,967.30	70.38	1,735.66	1,736.24	0.78	0.22	0.75
4,491.00	91.10	88.30	2,965.35	73.95	1,828.57	1,829.18	1.10	-0.22	1.08
4,585.00	91.60	89.10	2,963.14	76.08	1,922.52	1,923.14	1.00	0.53	0.85
4,678.00	91.50	89.50	2,960.62	77.22	2,015.48	2,016.11	0.44	-0.11	0.43
4,772.00	91.20	90.20	2,958.41	77.47	2,109.45	2,110.08	0.81	-0.32	0.74
4,866.00	91.90	90.80	2,955.86	76.65	2,203.41	2,204.03	0.98	0.74	0.64
4,959.00	90.00	90.80	2,954.32	75.35	2,296.39	2,296.99	2.04	-2.04	0.00
5,052.00	90.30	90.80	2,954.08	74.05	2,389.38	2,389.96	0.32	0.32	0.00
5,145.00	90.60	90.80	2,953.35	72.75	2,482.37	2,482.93	0.32	0.32	0.00
5,238.00	90.30	91.20	2,952.62	71.13	2,575.35	2,575.90	0.54	-0.32	0.43
5,331.00	89.40	91.30	2,952.86	69.10	2,668.32	2,668.85	0.97	-0.97	0.11
5,425.00	89.90	91.40	2,953.43	66.88	2,762.30	2,762.80	0.54	0.53	0.11
5,519.00	90.50	91.30	2,953.11	64.67	2,856.27	2,856.75	0.65	0.64	-0.11
5,613.00	90.60	91.20	2,952.20	62.62	2,950.24	2,950.70	0.15	0.11	-0.11
5,706.00	88.70	91.50	2,952.77	60.43	3,043.21	3,043.64	2.07	-2.04	0.32
5,799.00	89.00	91.40	2,954.64	58.08	3,136.16	3,136.57	0.34	0.32	-0.11
5,892.00	89.30	91.20	2,956.02	55.97	3,229.13	3,229.51	0.39	0.32	-0.22
5,986.00	89.70	90.80	2,956.84	54.33	3,323.11	3,323.47	0.60	0.43	-0.43
6,079.00	89.10	90.70	2,957.81	53.11	3,416.10	3,416.44	0.65	-0.65	-0.11
6,173.00	89.70	91.30	2,958.80	51.47	3,510.08	3,510.40	0.90	0.64	0.64
6,267.00	89.90	91.00	2,959.12	49.58	3,604.06	3,604.36	0.38	0.21	-0.32
6,360.00	89.20	91.70	2,959.86	47.39	3,697.03	3,697.31	1.06	-0.75	0.75
6,454.00	89.40	91.20	2,961.00	45.01	3,790.99	3,791.24	0.57	0.21	-0.53
6,547.00	89.40	90.60	2,961.98	43.55	3,883.97	3,884.21	0.65	0.00	-0.65
6,641.00	89.20	90.20	2,963.13	42.90	3,977.96	3,978.19	0.48	-0.21	-0.43
6,735.00	89.50	89.50	2,964.19	43.14	4,071.96	4,072.18	0.81	0.32	-0.74
6,828.00	89.60	88.80	2,964.92	44.52	4,164.94	4,165.17	0.76	0.11	-0.75
6,922.00	89.70	88.60	2,965.50	46.65	4,258.92	4,259.16	0.24	0.11	-0.21
7,016.00	89.00	88.80	2,966.56	48.79	4,352.88	4,353.15	0.77	-0.74	0.21
7,110.00	89.10	88.80	2,968.12	50.75	4,446.85	4,447.13	0.11	0.11	0.00
7,203.00	89.20	89.70	2,969.50	51.97	4,539.83	4,540.12	0.97	0.11	0.97
7,297.00	89.50	90.20	2,970.57	52.05	4,633.83	4,634.11	0.62	0.32	0.53
7,339.00	89.80	90.00	2,970.82	51.98	4,675.82	4,676.11	0.86	0.71	-0.48
Last Phoenix MWD Survey									
7,409.00	89.80	90.00	2,971.07	51.98	4,745.82	4,746.10	0.00	0.00	0.00
Project to TD									



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3418.00usft (Silver Oak 3)
Site:	Paint 32 Fee	MD Reference:	KB @ 3418.00usft (Silver Oak 3)
Well:	#2H	North Reference:	Grid
Wellbore:	WB1/Job #1410475	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	GCR DB

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,200.00	2,199.69	9.55	-32.07	Tie-on to VES Gyro
2,287.00	2,286.69	9.72	-33.14	First Phoenix MWD Survey
7,339.00	2,970.82	51.98	4,675.82	Last Phoenix MWD Survey
7,409.00	2,971.07	51.98	4,745.82	Projectio to TD

Checked By: _____ Approved By: _____ Date: _____



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

April 28, 2014

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

RE: Paint 32 Fee #2H
1670' FSL & 190' FWL
Sec. 32, T18S, R26E
Eddy County, New Mexico

Dear Sir,

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

Very truly yours,

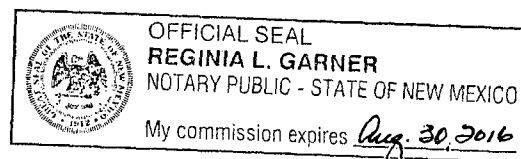
A handwritten signature in cursive script, appearing to read "Chris Graham".

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 28th day of April, 2014.

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

Notary Public

PAINT 32 FEE # 2H

Date	Depth	Deviation	Direction	TVD	Horiz
4/8/2014	206	0.50	0.00	0.00	0.00
4/8/2014	481	0.00	0.00	0.00	0.00
4/8/2014	717	0.80	0.00	0.00	0.00
4/8/2014	965	0.00	0.00	0.00	0.00
4/9/2014	1185	1.10	0.00	0.00	0.00
4/12/2014	1476	0.80	0.00	0.00	0.00
4/12/2014	1942	1.10	0.00	0.00	0.00
4/13/2014	2287	0.70	278.10	0.00	0.00
4/13/2014	2318	0.90	280.70	0.00	0.00
4/13/2014	2349	0.60	89.50	0.00	0.00
4/13/2014	2381	6.30	78.30	0.00	0.00
4/13/2014	2412	12.20	77.10	0.00	0.00
4/14/2014	2443	17.80	77.00	0.00	0.00
4/14/2014	2474	22.00	81.40	0.00	0.00
4/14/2014	2505	25.40	84.70	0.00	0.00
4/14/2014	2536	28.80	86.70	0.00	0.00
4/14/2014	2568	32.20	86.90	0.00	0.00
4/14/2014	2599	35.60	86.60	0.00	0.00
4/14/2014	2723	46.20	90.10	0.00	0.00
4/14/2014	2754	48.20	90.30	0.00	0.00
4/14/2014	2816	52.00	91.30	0.00	0.00
4/14/2014	2848	53.60	92.20	0.00	0.00
4/14/2014	2879	55.10	92.30	0.00	0.00
4/14/2014	2910	56.80	92.30	0.00	0.00
4/14/2014	2973	60.50	90.70	0.00	0.00
4/14/2014	3004	62.50	89.20	0.00	0.00
4/14/2014	3035	64.40	88.50	0.00	0.00
4/14/2014	3066	66.10	88.40	0.00	0.00
4/14/2014	3097	68.10	88.50	0.00	0.00
4/14/2014	3128	70.90	88.40	0.00	0.00
4/15/2014	3253	82.60	88.10	0.00	0.00
4/15/2014	3285	82.20	89.60	0.00	0.00
4/15/2014	3316	86.20	90.60	0.00	0.00
4/15/2014	3337	86.60	92.30	0.00	0.00
4/15/2014	3368	86.80	93.10	0.00	0.00
4/15/2014	3400	86.80	93.50	0.00	0.00
4/15/2014	3431	86.40	92.80	0.00	0.00
4/15/2014	3462	85.90	92.30	0.00	0.00
4/15/2014	3493	85.90	92.20	0.00	0.00
4/15/2014	3524	86.00	92.30	0.00	0.00
4/15/2014	3555	85.40	90.50	0.00	0.00
4/15/2014	3586	85.00	89.70	0.00	0.00
4/15/2014	3617	84.50	88.80	0.00	0.00

Date	Depth	Deviation	Direction	TVD	Horiz
4/16/2014	3742	85.30	86.50	0.00	0.00
4/16/2014	3836	86.00	85.30	0.00	0.00
4/16/2014	3929	87.00	85.00	0.00	0.00
4/16/2014	4023	88.30	84.30	0.00	0.00
4/16/2014	4086	89.10	84.40	0.00	0.00
4/16/2014	4117	89.30	84.40	0.00	0.00
4/16/2014	4211	90.60	85.70	0.00	0.00
4/16/2014	4305	91.10	86.60	0.00	0.00
4/16/2014	4398	91.30	87.30	0.00	0.00
4/17/2014	4491	91.10	88.30	0.00	0.00
4/17/2014	4585	91.60	89.10	0.00	0.00
4/18/2014	4678	91.50	89.50	0.00	0.00
4/18/2014	4772	91.20	90.20	0.00	0.00
4/18/2014	4866	91.90	90.80	0.00	0.00
4/18/2014	4959	90.00	90.80	0.00	0.00
4/18/2014	5052	90.30	90.80	0.00	0.00
4/19/2014	5145	90.60	90.80	0.00	0.00
4/19/2014	5238	90.30	91.20	0.00	0.00
4/19/2014	5331	89.40	91.30	0.00	0.00
4/19/2014	5425	89.90	0.00	0.00	0.00
4/19/2014	5519	90.50	91.30	0.00	0.00
4/19/2014	5613	90.60	91.20	0.00	0.00
4/19/2014	5706	88.70	91.50	0.00	0.00
4/19/2014	5799	89.00	91.40	0.00	0.00
4/19/2014	5892	89.30	91.20	0.00	0.00
4/19/2014	5986	89.70	90.80	0.00	0.00
4/19/2014	6079	89.10	90.70	0.00	0.00
4/19/2014	6173	89.70	91.30	0.00	0.00
4/20/2014	6267	89.90	91.00	0.00	0.00
4/20/2014	6360	89.20	91.70	0.00	0.00
4/20/2014	6453	89.40	91.20	0.00	0.00
4/20/2014	6547	89.40	90.60	0.00	0.00
4/20/2014	6641	89.20	90.20	0.00	0.00
4/20/2014	6735	89.50	89.50	0.00	0.00
4/20/2014	6828	89.60	88.80	0.00	0.00
4/20/2014	6922	89.70	88.60	0.00	0.00
4/20/2014	7016	89.00	88.80	0.00	0.00
4/20/2014	7110	89.10	88.80	0.00	0.00
4/21/2014	7203	89.20	89.70	0.00	0.00
4/21/2014	7297	89.50	90.20	0.00	0.00

EOF