

PATRIOT DRILLING, LLC

30-015-40950

OPERATOR: COG Operating, LLC
WELL/LEASE: Bongo Fee Com # 1 H
COUNTY: Eddy Co., New Mexico
Sec. 13, T24S, R27E

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
248	1	1,352	1 1/2
517	1 1/2	1,447	2 1/4
782	2	1,542	1 3/4
876	2	1,731	2 1/2
971	1 1/4	1,921	2
1,162	3/4	2,015	2

RECEIVED

JUL 10 2013

NMOCD ARTESIA

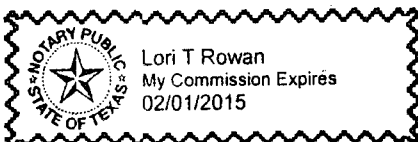
Patriot Drilling, LLC

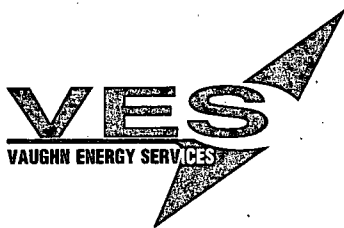
M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 8th day of May, 2013 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015

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



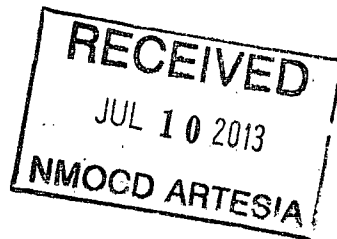


A GYRO TECHNOLOGIES INC. COMPANY

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

May 3, 2013

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



Attn: Kanicia Castillo

Re: **Bongo Fee No 001H**

Please find enclosed a copy of the survey from 0' to 6,570' ran on the above referenced well.

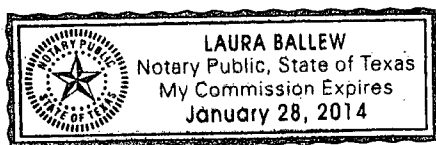
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES. §

This instrument was acknowledged before me on the 3rd day of May, A.D., 2013, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas

Company: COG Operating LLC (Concho)

Lease/Well: Bongo Fee/No 001H



Rig Name: Patriot 2

State/County: New Mexico/Eddy

Latitude: 32.21, Longitude: -104.14

GRID North is 0.10 Degrees East 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: 5/3/2013 / 15:34

Vaughn Energy Services

Midland, Texas

432-563-5444

Surveyor: Tim Dillon

Bongo Fee No 001H / API 30-015-40950

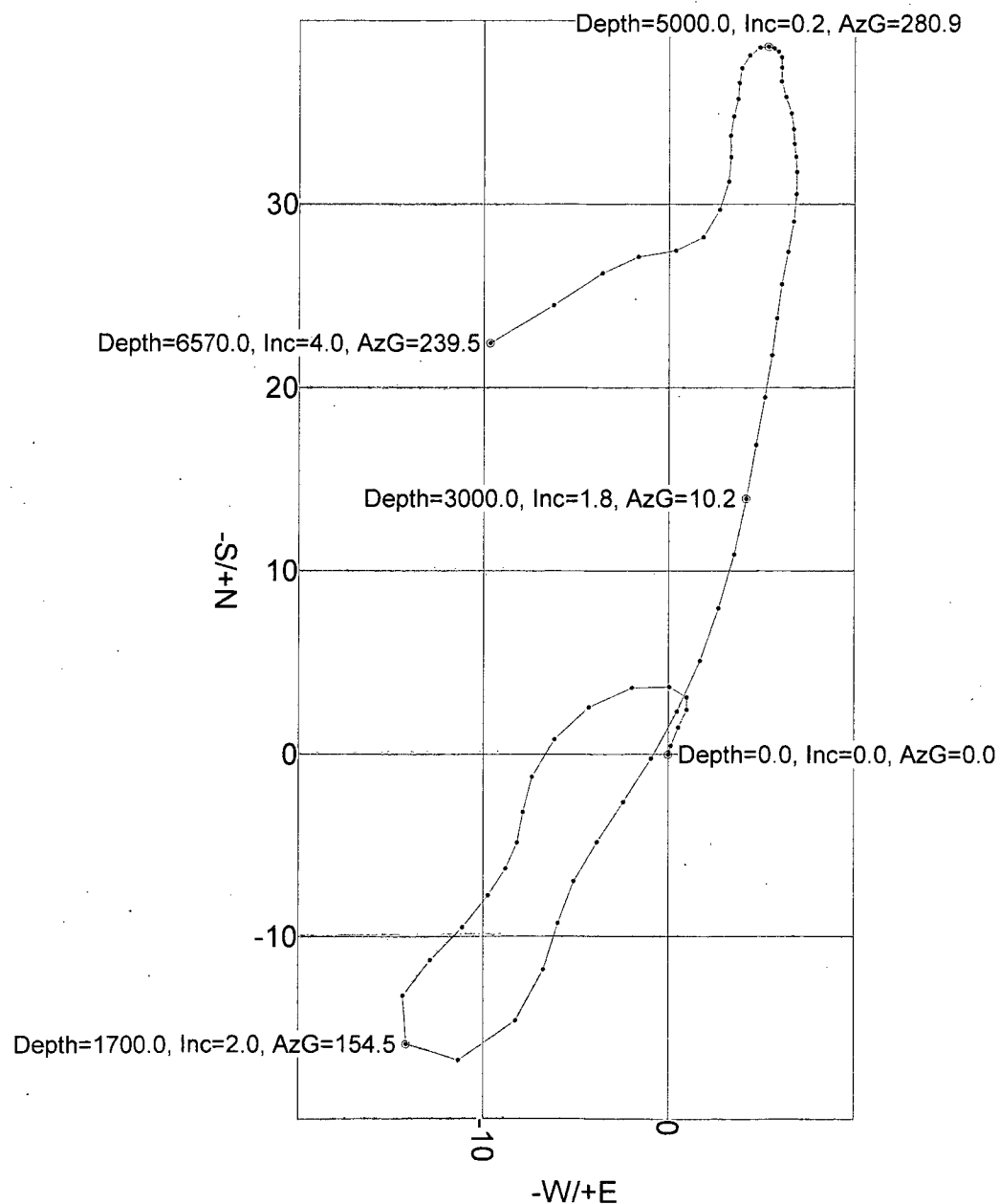
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.55	15.64	100.00	0.46	0.13	0.48	15.64	0.55
200.00	0.70	26.29	199.99	1.47	0.53	1.56	19.81	0.20
300.00	0.52	23.69	299.99	2.43	0.98	2.63	21.99	0.19
400.00	0.38	326.85	399.98	3.12	0.98	3.27	17.50	0.44
500.00	0.93	290.80	499.98	3.69	0.04	3.69	0.68	0.67
600.00	1.49	254.75	599.96	3.63	-1.97	4.13	331.53	0.92
700.00	1.48	236.41	699.92	2.58	-4.30	5.02	300.90	0.47
800.00	1.50	218.06	799.89	0.83	-6.19	6.24	277.63	0.48
900.00	1.27	201.39	899.86	-1.23	-7.40	7.50	260.56	0.46
1000.00	1.03	184.71	999.84	-3.16	-7.88	8.48	248.16	0.41
1100.00	0.94	197.26	1099.83	-4.84	-8.19	9.52	239.43	0.23
1200.00	0.86	209.81	1199.81	-6.27	-8.81	10.81	234.54	0.22
1300.00	1.14	215.08	1299.80	-7.74	-9.75	12.45	231.58	0.30
1400.00	1.43	220.34	1399.77	-9.50	-11.13	14.64	229.52	0.31
1500.00	1.44	228.37	1499.74	-11.29	-12.88	17.13	228.77	0.20
1600.00	1.41	206.40	1599.71	-13.23	-14.37	19.53	227.37	0.54
1700.00	1.97	154.46	1699.67	-15.89	-14.18	21.29	221.75	1.56
1800.00	2.52	72.53	1799.62	-16.78	-11.34	20.25	214.06	2.97

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	2.05	32.56	1899.54	-14.61	-8.28	16.79	209.55	1.62
2000.00	1.59	22.59	1999.49	-11.81	-6.78	13.62	209.86	0.56
2100.00	1.49	11.49	2099.46	-9.26	-5.99	11.03	212.89	0.32
2200.00	1.38	30.39	2199.43	-6.95	-5.12	8.63	216.38	0.48
2300.00	1.47	31.29	2299.40	-4.82	-3.85	6.17	218.61	0.09
2400.00	1.55	34.19	2399.36	-2.60	-2.42	3.56	222.93	0.11
2500.00	1.66	30.32	2499.32	-0.24	-0.93	0.96	255.71	0.15
2600.00	1.72	26.45	2599.28	2.35	0.46	2.40	11.18	0.13
2700.00	1.74	21.12	2699.23	5.11	1.68	5.38	18.19	0.16
2800.00	1.74	17.78	2799.19	7.97	2.69	8.41	18.65	0.10
2900.00	1.76	13.97	2899.14	10.91	3.52	11.46	17.91	0.12
3000.00	1.81	10.15	2999.09	13.95	4.17	14.56	16.65	0.13
3100.00	1.61	10.31	3099.05	16.89	4.70	17.53	15.56	0.20
3200.00	1.42	10.46	3199.01	19.49	5.18	20.16	14.88	0.18
3300.00	1.24	8.34	3298.99	21.78	5.56	22.48	14.33	0.19
3400.00	1.08	6.22	3398.97	23.80	5.82	24.50	13.75	0.17
3500.00	1.05	9.42	3498.95	25.64	6.08	26.35	13.33	0.07
3600.00	1.00	12.61	3598.93	27.41	6.42	28.15	13.18	0.08
3700.00	0.91	7.71	3698.92	29.05	6.71	29.81	13.02	0.13
3800.00	0.81	2.81	3798.91	30.54	6.86	31.30	12.65	0.12
3900.00	0.58	357.90	3898.90	31.76	6.87	32.49	12.21	0.24
4000.00	0.37	352.99	3998.90	32.59	6.81	33.29	11.81	0.22
4100.00	0.44	355.45	4098.89	33.29	6.74	33.96	11.45	0.07
4200.00	0.49	357.90	4198.89	34.10	6.70	34.75	11.12	0.05
4300.00	0.52	347.24	4298.89	34.97	6.58	35.58	10.66	0.10
4400.00	0.56	336.58	4398.88	35.86	6.29	36.40	9.95	0.11
4500.00	0.47	353.60	4498.88	36.71	6.05	37.21	9.36	0.17
4600.00	0.39	10.63	4598.87	37.46	6.07	37.95	9.20	0.15
4700.00	0.27	342.26	4698.87	38.02	6.06	38.50	9.05	0.20
4800.00	0.16	313.89	4798.87	38.34	5.88	38.79	8.73	0.15
4900.00	0.18	297.42	4898.87	38.50	5.65	38.92	8.35	0.05
5000.00	0.20	280.95	4998.87	38.61	5.35	38.97	7.88	0.06
5100.00	0.34	251.14	5098.87	38.54	4.90	38.85	7.24	0.20
5200.00	0.49	221.33	5198.87	38.13	4.33	38.37	6.48	0.26
5300.00	0.48	200.33	5298.86	37.42	3.91	37.62	5.96	0.18
5400.00	0.47	179.34	5398.86	36.62	3.77	36.81	5.87	0.17
5500.00	0.53	188.62	5498.86	35.75	3.70	35.94	5.91	0.10
5600.00	0.60	197.90	5598.85	34.79	3.47	34.97	5.70	0.11
5700.00	0.65	181.69	5698.85	33.73	3.30	33.89	5.58	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
5800.00	0.70	175.47	5798.84	32.57	3.33	32.74	5.83	0.09
5900.00	0.85	193.28	5898.83	31.24	3.20	31.40	5.86	0.28
6000.00	1.01	201.09	5998.82	29.70	2.72	29.82	5.23	0.20
6100.00	1.02	219.63	6098.80	28.19	1.83	28.25	3.72	0.33
6200.00	1.03	268.17	6198.79	27.48	0.37	27.48	0.77	0.84
6300.00	1.34	254.42	6298.77	27.14	-1.65	27.19	356.52	0.42
6400.00	1.15	234.45	6398.74	26.24	-3.59	26.49	352.21	0.47
6500.00	2.52	237.89	6498.69	24.49	-6.27	25.28	345.65	1.37
6570.00	3.98	239.50	6568.58	22.44	-9.66	24.43	336.70	2.09

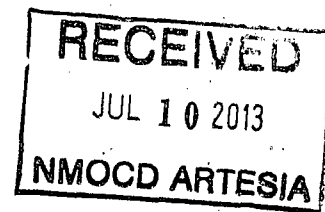


Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Tim Dillon
Bongo Fee No 001H / API 30-015-40950



VES Survey Date: 04/30/2013

Archer



PVA & Survey Report



Project: Eddy County(NM27E)
Site: Sec.13-T24S-R27E
Well: Bongo Fee #1H
Wellbore: Wellbore #1
Design: Design #3
Lat: 32° 12' 39.756 N
Long: 104° 8' 29.153 W
GL: 3111.50
KB: WELL @ 3128.50usft (Original Well Elev)

Archer

SECTION DETAILS

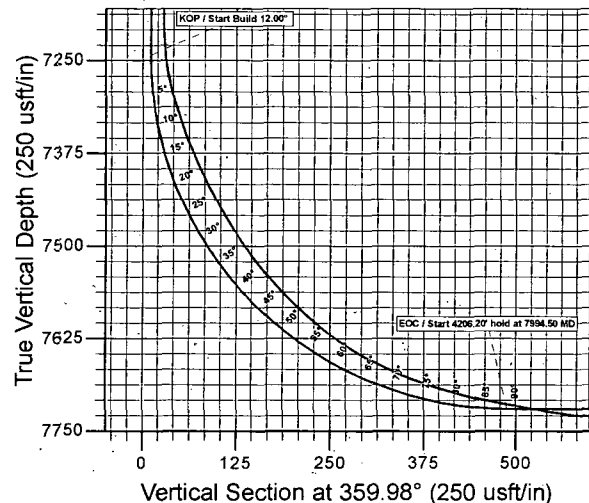
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
6570.00	3.98	239.50	6568.58	22.40	-9.69	0.00	0.00	22.41	Tie-in / Start Drop -0.59°
7244.50	0.00	0.00	7242.54	10.52	-29.86	0.59	180.00	10.53	KOP / Start Build 12.00°
7994.50	90.00	0.34	7720.00	487.97	-27.00	12.00	0.34	487.98	EOC / Start 4206.20° hold at 7994.50 MD
12200.70	90.00	0.34	7720.00	4694.10	-1.80	0.00	0.00	4694.10	TD at 12200.70

WELL DETAILS: Bongo Fee #1H

+N/-S	+E/-W	Northing	Ground Level: Easting	3111.50 Latitude	Longitude	Slot
0.00	0.00	440550.000	559382.000	32° 12' 39.756 N	104° 8' 29.153 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Bongo Fee #1H PBHL	7720.00	4694.10	-1.80	32° 13' 26.211 N	104° 8' 29.076 W	Point
Bongo Fee #1H BHL	7737.71	4694.19	17.83	32° 13' 26.211 N	104° 8' 28.848 W	Point

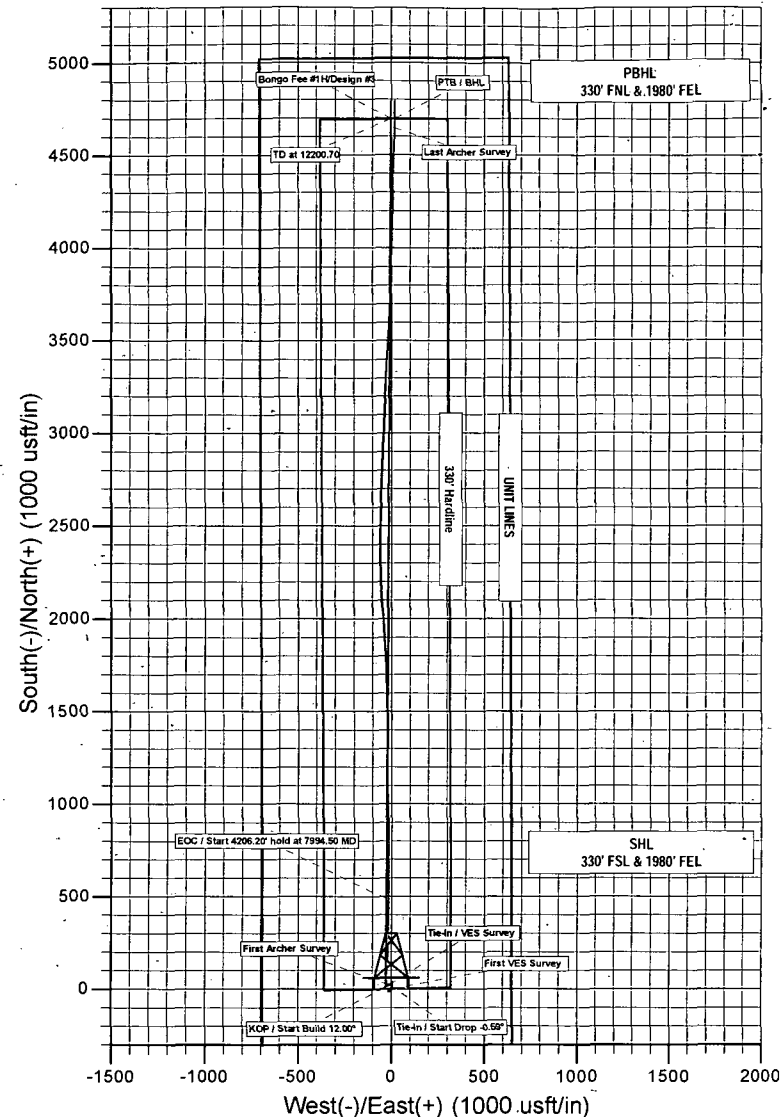
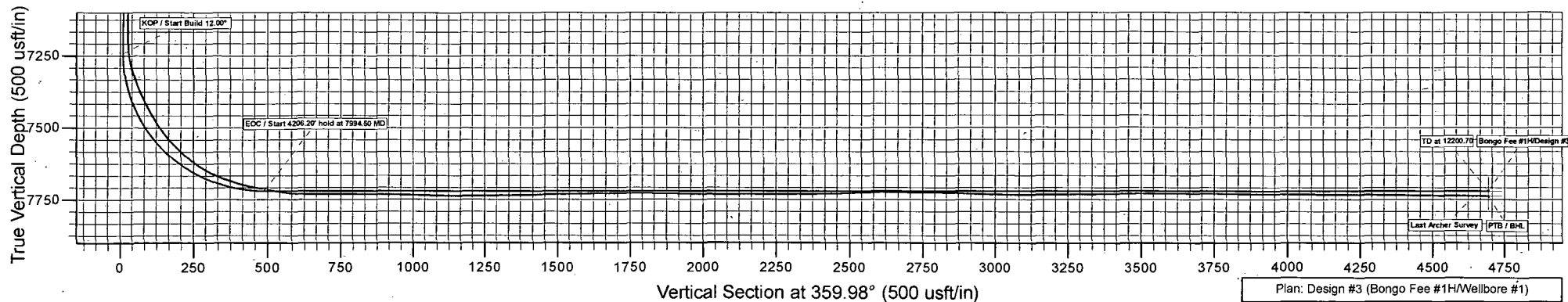
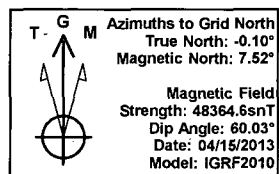


PROJECT DETAILS: Eddy County(NM27E)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Sec.13-T24S-R27E

Site Centre Latitude: 32° 12' 39.756 N
Longitude: 104° 8' 29.153 W

Positional Uncertainty: 0.00
Convergence: 0.10
Local North: Grid



Plan: Design #3 (Bongo Fee #1H/Wellbore #1)
Created By: Bret Wolford Date: 13:57, May 13 2013



COG Operating, LLC

Eddy County(NM27E)

Sec.13-T24S-R27E

Bongo Fee #1H

Wellbore #1

Survey: Survey #3-Archer MWD

Standard Survey Report

13 May, 2013

Archer

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Bongo Fee #1H
Project:	Eddy County(NM27E)	TVD Reference:	WELL @ 3128.50usft (Original Well Elev)
Site:	Sec.13-T24S-R27E	MD Reference:	WELL @ 3128.50usft (Original Well Elev)
Well:	Bongo Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County(NM27E)		
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	Sec.13-T24S-R27E		
Site Position:		Northing:	440,550.000 usft
From:	Map	Easting:	559,352.000 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 12' 39.756 N
		Longitude:	104° 8' 29.153 W
		Grid Convergence:	0.10 °

Well	Bongo Fee #1H		
Well Position	+N/-S	0.00 usft	Northing: 440,550.000 usft
	+E/-W	0.00 usft	Easting: 559,352.000 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 12' 39.756 N
		Longitude:	104° 8' 29.153 W
		Ground Level:	3,111.50 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	04/15/13	7.62
			Dip Angle (°)
			60.03
			Field Strength (nT)
			48,365

Design	Wellbore #1		
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 (°)
			359.98

Survey Program	Date	05/09/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	6,570.00	Survey #2-VES Gyro (Wellbore #1)	GYD_DP_MS	Gyrodata gyro-compassing and drop
6,629.00	12,160.00	Survey #3-Archer MWD (Wellbore #1)	MWD	MWD - Standard

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)
Tie-In / VES Survey									
6,570.00	3.98	239.50	6,568.58	22.40	-9.69	22.41	0.00	0.00	0.00
First Archer Survey									
6,629.00	2.30	263.30	6,627.49	21.23	-12.63	21.23	3.55	-2.85	40.34
6,692.00	1.60	281.80	6,690.45	21.26	-14.74	21.26	1.48	-1.11	29.37
6,786.00	1.60	297.00	6,784.41	22.12	-17.20	22.13	0.45	0.00	16.17
6,881.00	1.50	306.00	6,879.38	23.45	-19.39	23.46	0.28	-0.11	9.47
6,975.00	1.40	314.20	6,973.35	24.98	-21.20	24.99	0.24	-0.11	8.72
7,069.00	1.20	314.50	7,067.33	26.47	-22.73	26.48	0.21	-0.21	0.32
7,164.00	1.50	303.70	7,162.30	27.86	-24.47	27.86	0.41	0.32	-11.37
7,196.00	1.60	292.90	7,194.29	28.26	-25.23	28.27	0.96	0.31	-33.75
7,228.00	3.40	357.50	7,226.26	29.38	-25.69	29.39	9.61	5.62	201.87

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Bongo Fee #1H
Project:	Eddy County(NM27E)	TVD Reference:	WELL @ 3128.50usft (Original Well Elev)
Site:	Sec.13-T24S-R27E	MD Reference:	WELL @ 3128.50usft (Original Well Elev)
Well:	Bongo Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User 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)
7,259.00	8.80	354.30	7,257.07	32.66	-25.96	32.67	17.45	17.42	-10.32
7,290.00	13.70	354.70	7,287.47	38.68	-26.54	38.69	15.81	15.81	1.29
7,322.00	17.80	356.50	7,318.26	47.34	-27.19	47.35	12.90	12.81	5.62
7,354.00	20.40	0.10	7,348.50	57.80	-27.47	57.81	8.92	8.12	11.25
7,385.00	23.20	1.80	7,377.28	69.31	-27.27	69.32	9.26	9.03	5.48
7,417.00	25.10	2.60	7,406.48	82.39	-26.77	82.40	6.02	5.94	2.50
7,449.00	28.30	4.10	7,435.06	96.74	-25.92	96.75	10.22	10.00	4.69
7,481.00	30.60	4.50	7,462.92	112.43	-24.74	112.44	7.21	7.19	1.25
7,512.00	33.50	3.60	7,489.20	128.84	-23.58	128.85	9.48	9.35	-2.90
7,544.00	36.60	3.30	7,515.39	147.18	-22.48	147.19	9.70	9.69	-0.94
7,576.00	40.10	3.20	7,540.48	167.00	-21.35	167.01	10.94	10.94	-0.31
7,608.00	43.50	2.30	7,564.33	188.30	-20.33	188.31	10.79	10.62	-2.81
7,639.00	46.90	2.30	7,586.17	210.28	-19.45	210.28	10.97	10.97	0.00
7,671.00	50.30	2.10	7,607.33	234.26	-18.53	234.27	10.64	10.62	-0.62
7,703.00	54.30	359.90	7,626.90	259.57	-18.10	259.57	13.63	12.50	-6.87
7,734.00	58.80	359.40	7,643.98	285.43	-18.26	285.43	14.58	14.52	-1.61
7,766.00	63.30	0.20	7,659.47	313.42	-18.36	313.43	14.23	14.06	2.50
7,798.00	67.30	1.20	7,672.84	342.48	-18.00	342.49	12.82	12.50	3.12
7,829.00	70.20	1.20	7,684.07	371.37	-17.39	371.37	9.35	9.35	0.00
7,861.00	74.20	1.40	7,693.85	401.82	-16.70	401.83	12.51	12.50	0.62
7,961.00	80.20	0.70	7,716.00	499.27	-14.92	499.28	6.04	6.00	-0.70
7,992.00	80.10	0.20	7,721.30	529.81	-14.68	529.82	1.62	-0.32	-1.61
8,024.00	82.20	0.40	7,726.22	561.43	-14.51	561.44	6.59	6.56	0.62
8,055.00	86.20	0.50	7,729.36	592.27	-14.27	592.27	12.91	12.90	0.32
8,087.00	89.50	1.10	7,730.56	624.24	-13.83	624.24	10.48	10.31	1.87
8,119.00	89.10	0.80	7,730.95	656.23	-13.30	656.23	1.56	-1.25	-0.94
8,214.00	90.20	0.00	7,731.53	751.22	-12.63	751.23	1.43	1.16	-0.84
8,309.00	89.50	358.70	7,731.78	846.21	-13.71	846.22	1.55	-0.74	-1.37
8,404.00	89.20	358.70	7,732.85	941.18	-15.87	941.19	0.32	-0.32	0.00
8,499.00	88.20	357.60	7,735.01	1,036.11	-18.93	1,036.11	1.56	-1.05	-1.16
8,594.00	89.70	358.80	7,736.75	1,131.04	-21.91	1,131.05	2.02	1.58	1.26
8,688.00	90.60	0.60	7,736.50	1,225.03	-22.41	1,225.04	2.14	0.96	1.91
8,783.00	90.40	359.70	7,735.68	1,320.03	-22.16	1,320.04	0.97	-0.21	-0.95
8,878.00	91.90	0.60	7,733.77	1,415.00	-21.91	1,415.01	1.84	1.58	0.95
8,974.00	91.40	359.40	7,731.00	1,510.96	-21.91	1,510.97	1.35	-0.52	-1.25
9,069.00	91.00	358.90	7,729.01	1,605.93	-23.32	1,605.94	0.67	-0.42	-0.53
9,164.00	90.60	358.20	7,727.69	1,700.89	-25.72	1,700.90	0.85	-0.42	-0.74
9,259.00	89.50	358.80	7,727.61	1,795.80	-29.87	1,795.81	1.87	-1.16	-1.47
9,354.00	89.10	356.00	7,728.77	1,890.60	-35.83	1,890.61	0.94	-0.42	-0.84
9,450.00	88.70	355.30	7,730.61	1,986.31	-43.11	1,986.32	0.84	-0.42	-0.73
9,544.00	90.10	357.60	7,731.59	2,080.11	-48.93	2,080.13	2.86	1.49	2.45
9,639.00	90.20	357.80	7,731.34	2,175.03	-52.74	2,175.05	0.24	0.11	0.21
9,735.00	90.20	357.60	7,731.01	2,270.96	-56.59	2,270.98	0.21	0.00	-0.21
9,830.00	90.90	359.80	7,730.10	2,365.92	-58.75	2,365.94	2.43	0.74	2.32
9,925.00	91.60	359.70	7,728.03	2,460.90	-59.16	2,460.92	0.74	0.74	-0.11
10,020.00	91.60	1.80	7,725.37	2,555.85	-57.92	2,555.87	2.21	0.00	2.21
10,115.00	89.70	2.10	7,724.29	2,650.78	-54.69	2,650.80	2.02	-2.00	0.32
10,210.00	89.80	1.90	7,724.71	2,745.72	-51.37	2,745.74	0.24	0.11	-0.21
10,305.00	88.20	1.90	7,726.37	2,840.65	-48.22	2,840.67	1.68	-1.68	0.00
10,400.00	88.00	2.00	7,729.52	2,935.55	-44.99	2,935.56	0.24	-0.21	0.11
10,496.00	88.70	2.20	7,732.28	3,031.44	-41.48	3,031.45	0.76	0.73	0.21
10,590.00	89.70	2.80	7,733.59	3,125.34	-37.38	3,125.35	1.24	1.06	0.64
10,685.00	91.20	3.40	7,732.85	3,220.19	-32.24	3,220.21	1.70	1.58	0.63
10,779.00	90.80	2.60	7,731.21	3,314.05	-27.32	3,314.06	0.95	-0.43	-0.85



Archer
Survey Report

Archer

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well Bongo Fee #1H
Project:	Eddy County(NM27E)	TVD Reference:	WELL @ 3128.50usft (Original Well Elev)
Site:	Sec.13-T24S-R27E	MD Reference:	WELL @ 3128.50usft (Original Well Elev)
Well:	Bongo Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User 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)
10,874.00	90.70	2.90	7,729.96	3,408.93	-22.76	3,408.94	0.33	-0.11	0.32
10,969.00	90.60	3.20	7,728.89	3,503.79	-17.71	3,503.80	0.33	-0.11	0.32
11,063.00	89.70	2.50	7,728.64	3,597.67	-13.04	3,597.68	1.21	-0.96	-0.74
11,159.00	89.60	2.10	7,729.23	3,693.59	-9.18	3,693.60	0.43	-0.10	-0.42
11,254.00	89.40	1.70	7,730.05	3,788.54	-6.03	3,788.54	0.47	-0.21	-0.42
11,349.00	89.60	1.50	7,730.88	3,883.50	-3.38	3,883.50	0.30	0.21	-0.21
11,444.00	89.40	1.30	7,731.71	3,978.47	-1.06	3,978.47	0.30	-0.21	-0.21
11,539.00	89.80	1.60	7,732.38	4,073.43	1.34	4,073.43	0.53	0.42	0.32
11,634.00	89.60	1.50	7,732.87	4,168.40	3.91	4,168.40	0.24	-0.21	-0.11
11,729.00	89.50	1.40	7,733.62	4,263.36	6.32	4,263.36	0.15	-0.11	-0.11
11,824.00	89.50	1.60	7,734.45	4,358.33	8.80	4,358.32	0.21	0.00	0.21
11,919.00	89.40	1.60	7,735.36	4,453.29	11.46	4,453.28	0.11	-0.11	0.00
12,013.00	89.40	1.80	7,736.35	4,547.24	14.24	4,547.23	0.21	0.00	0.21
Last Archer Survey									
12,110.00	89.50	1.20	7,737.28	4,644.20	16.78	4,644.19	0.63	0.10	-0.62
PTB / BHL									
12,160.00	89.50	1.20	7,737.71	4,694.19	17.83	4,694.18	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Bongo Fee #1H PBHL	0.00	0.00	7,720.00	4,694.10	-1.80	445,244.100	559,350.200	32° 13' 26.211 N	104° 8' 29.076 W
- survey misses target center by 26.43usft at 12159.35usft MD (7737.71 TVD, 4693.53 N, 17.82 E)									
- Point									
Bongo Fee #1H BHL	0.00	0.00	7,737.71	4,694.19	17.83	445,244.188	559,369.831	32° 13' 26.211 N	104° 8' 28.848 W
- survey hits target center									
- Point									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,570.00	6,568.58	22.40	-9.69	Tie-In / VES Survey
6,629.00	6,627.49	21.23	-12.63	First Archer Survey
12,110.00	7,737.28	4,644.20	16.78	Last Archer Survey
12,160.00	7,737.71	4,694.19	17.83	PTB / BHL

Checked By: _____	Approved By: _____	Date: _____
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