

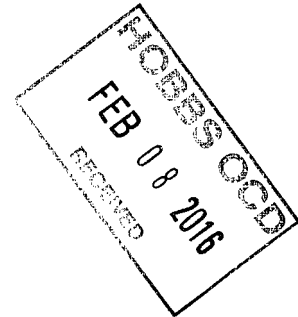
RECEIVED

JUL 31 15

COG
ARTESIA WEST



July 24, 2015



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

Attn: Kanicia Castillo

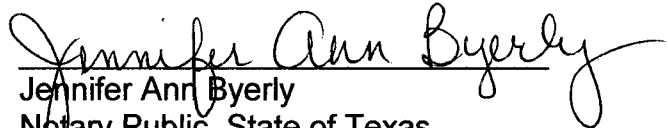
RE: **Eata Fajita State No 011H**

Please find enclosed a copy of the survey from 0' to 8469' ran on the above referenced well.

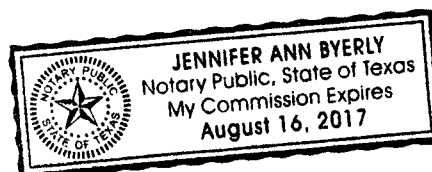
Sincerely, 
Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 24 day of July,
A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas

VES Survey International
P.O. Box 261021 Corpus Christi, TX 78426
T (361) 767-0602 F (361) 767-0612
www.vessurvey.com



MAR 31 2016





Company: Concho

Lease/Well: Eata Fajita State No/011H

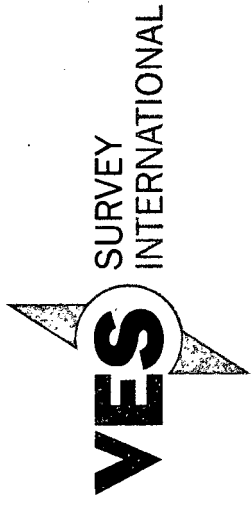
Rig Name: Independence 205

State/County: New Mexico/Lea

VS-Azi: 0.00 Degrees

Latitude: 32.22529, Longitude: -103.60168

Grid North = True North -0.39 degs



Depth Reference : RKB = 26 feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 7/24/2015 / 14:31

VES Survey International
Midland, Texas
432-563-5444

Surveyor: Adam Askew

Eata Fajita State No 011H / API 30-025-42505

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	0.13	228.33	100.00	-0.08	-0.09	-0.08	0.11	228.33	0.13
200.00	0.06	114.57	200.00	-0.17	-0.12	-0.17	0.21	214.94	0.17
300.00	0.28	180.75	300.00	-0.44	-0.08	-0.44	0.45	189.69	0.27
400.00	0.18	273.63	400.00	-0.68	-0.23	-0.68	0.72	198.79	0.34
500.00	0.27	219.54	500.00	-0.86	-0.54	-0.86	1.01	212.08	0.22
600.00	0.34	172.15	600.00	-1.34	-0.65	-1.34	1.48	205.85	0.26
700.00	0.17	117.86	700.00	-1.70	-0.47	-1.70	1.77	195.51	0.28
800.00	0.03	207.08	800.00	-1.79	-0.35	-1.79	1.83	191.02	0.17
900.00	0.26	152.82	900.00	-2.02	-0.25	-2.02	2.03	187.17	0.25
1000.00	0.49	180.35	999.99	-2.65	-0.15	-2.65	2.65	183.26	0.28
1100.00	0.20	244.09	1099.99	-3.15	-0.31	-3.15	3.16	185.56	0.44
1200.00	0.16	249.00	1199.99	-3.27	-0.59	-3.27	3.32	190.17	0.04
1300.00	0.07	300.86	1299.99	-3.29	-0.77	-3.29	3.38	193.14	0.12
1400.00	0.13	87.20	1399.99	-3.25	-0.71	-3.25	3.33	192.28	0.20
1500.00	0.21	112.27	1499.99	-3.31	-0.43	-3.31	3.34	187.31	0.11
1600.00	0.19	91.08	1599.99	-3.39	-0.09	-3.39	3.39	181.57	0.08
1700.00	0.06	191.99	1699.99	-3.44	0.06	-3.44	3.44	179.00	0.21
1800.00	0.14	272.42	1799.99	-3.49	-0.08	-3.49	3.49	181.23	0.15

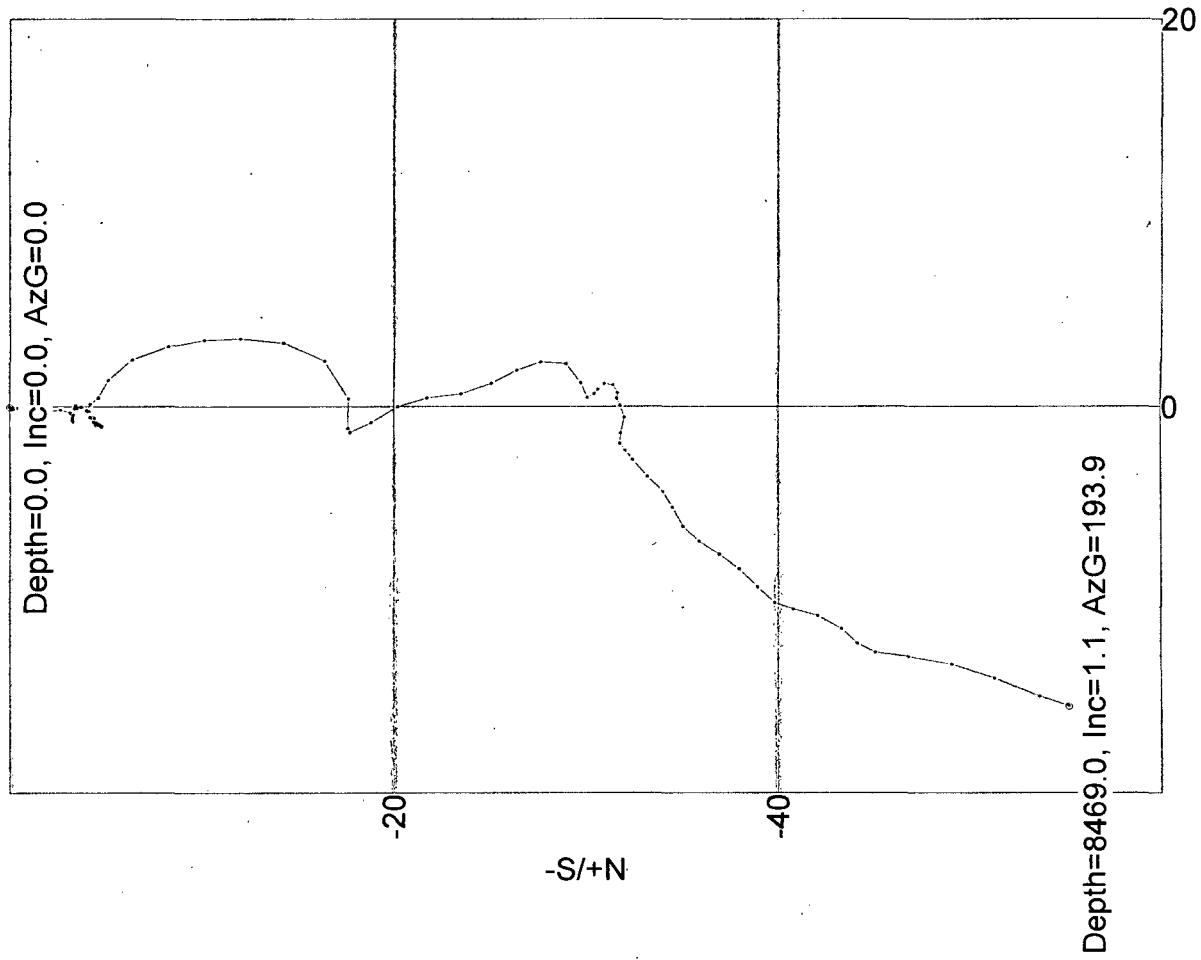
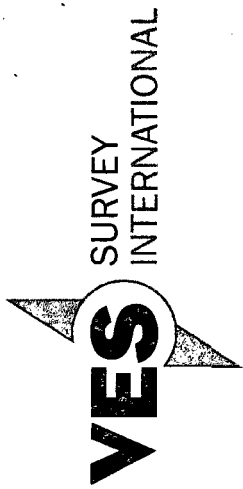
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.14	104.71	1899.99	-3.52	-0.08	-3.52	3.52	181.28	0.28
2000.00	0.21	195.83	1999.99	-3.73	-0.01	-3.73	3.73	180.13	0.26
2100.00	0.32	218.45	2099.99	-4.13	-0.23	-4.13	4.13	183.25	0.15
2200.00	0.21	252.24	2199.99	-4.40	-0.58	-4.40	4.44	187.56	0.19
2300.00	0.15	226.66	2299.99	-4.55	-0.85	-4.55	4.63	190.64	0.10
2400.00	0.04	146.51	2399.99	-4.67	-0.93	-4.67	4.76	191.25	0.15
2500.00	0.15	228.93	2499.99	-4.79	-1.01	-4.79	4.89	191.91	0.15
2600.00	0.13	32.66	2599.99	-4.78	-1.05	-4.78	4.90	192.41	0.28
2700.00	0.06	55.53	2699.99	-4.66	-0.95	-4.66	4.76	191.54	0.07
2800.00	0.07	357.04	2799.99	-4.57	-0.91	-4.57	4.66	191.29	0.06
2900.00	0.06	333.85	2899.99	-4.47	-0.94	-4.47	4.57	191.86	0.03
3000.00	0.19	73.21	2999.99	-4.37	-0.80	-4.37	4.45	190.36	0.21
3100.00	0.18	34.37	3099.99	-4.20	-0.55	-4.20	4.23	187.48	0.12
3200.00	0.33	72.08	3199.98	-3.98	-0.19	-3.98	3.99	182.72	0.22
3300.00	0.33	171.71	3299.98	-4.17	0.13	-4.17	4.18	178.26	0.50
3400.00	0.36	118.57	3399.98	-4.61	0.44	-4.61	4.63	174.53	0.31
3500.00	0.85	119.66	3499.98	-5.12	1.36	-5.12	5.30	165.11	0.50
3600.00	1.08	155.05	3599.96	-6.35	2.41	-6.35	6.79	159.22	0.63
3700.00	1.22	164.65	3699.94	-8.23	3.09	-8.23	8.79	159.43	0.23
3800.00	0.98	176.07	3799.92	-10.10	3.43	-10.10	10.67	161.25	0.32
3900.00	1.19	178.82	3899.91	-11.99	3.51	-11.99	12.50	163.69	0.22
4000.00	1.40	191.39	3999.88	-14.23	3.29	-14.23	14.61	166.99	0.35
4100.00	1.34	215.93	4099.85	-16.38	2.36	-16.38	16.55	171.80	0.59
4200.00	1.49	256.63	4199.82	-17.63	0.41	-17.63	17.63	178.67	0.99
4300.00	0.48	320.77	4299.81	-17.60	-1.12	-17.60	17.64	183.65	1.35
4400.00	0.49	172.19	4399.81	-17.70	-1.33	-17.70	17.75	184.30	0.94
4500.00	0.95	146.73	4499.80	-18.82	-0.82	-18.82	18.83	182.49	0.54
4600.00	0.88	152.11	4599.79	-20.19	-0.01	-20.19	20.19	180.02	0.11
4700.00	0.99	174.00	4699.78	-21.73	0.44	-21.73	21.73	178.83	0.37
4800.00	1.03	172.79	4799.76	-23.47	0.65	-23.47	23.48	178.42	0.05
4900.00	0.94	147.37	4899.75	-25.06	1.20	-25.06	25.09	177.25	0.44
5000.00	0.78	160.19	4999.73	-26.39	1.88	-26.39	26.46	175.93	0.25
5100.00	0.71	162.73	5099.73	-27.62	2.29	-27.62	27.72	175.26	0.08
5200.00	0.90	199.10	5199.72	-28.95	2.22	-28.95	29.04	175.62	0.54
5300.00	0.84	267.21	5299.71	-29.73	1.23	-29.73	29.76	177.63	0.98
5400.00	0.35	188.81	5399.70	-30.07	0.45	-30.07	30.07	179.13	0.84
5500.00	0.28	106.79	5499.70	-30.44	0.65	-30.44	30.44	178.78	0.42
5600.00	0.13	177.60	5599.70	-30.62	0.89	-30.62	30.63	178.34	0.27
5700.00	0.41	125.51	5699.70	-30.94	1.18	-30.94	30.96	177.81	0.34

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
5800.00	0.50	235.19	5799.70	-31.39	1.12	-31.39	31.41	177.96	0.74
5900.00	0.07	262.50	5899.70	-31.65	0.70	-31.65	31.65	178.73	0.43
6000.00	0.26	281.94	5999.70	-31.61	0.42	-31.61	31.61	179.23	0.19
6100.00	0.30	216.70	6099.70	-31.77	0.05	-31.77	31.77	179.92	0.30
6200.00	0.52	267.70	6199.69	-32.00	-0.56	-32.00	32.01	181.01	0.40
6300.00	0.48	302.37	6299.69	-31.80	-1.36	-31.80	31.83	182.45	0.30
6400.00	0.31	226.36	6399.69	-31.76	-1.91	-31.76	31.82	183.44	0.50
6500.00	0.21	240.65	6499.69	-32.03	-2.26	-32.03	32.11	184.04	0.12
6600.00	0.50	228.30	6599.69	-32.41	-2.74	-32.41	32.53	184.84	0.30
6700.00	0.84	227.41	6699.68	-33.20	-3.61	-33.20	33.40	186.21	0.34
6800.00	0.43	217.83	6799.67	-33.99	-4.38	-33.99	34.27	187.34	0.43
6900.00	0.71	251.26	6899.67	-34.49	-5.19	-34.49	34.87	188.57	0.42
7000.00	0.61	228.26	6999.66	-35.04	-6.18	-35.04	35.58	190.00	0.28
7100.00	0.70	217.40	7099.65	-35.88	-6.95	-35.88	36.55	190.96	0.16
7200.00	0.73	208.18	7199.65	-36.93	-7.62	-36.93	37.71	191.66	0.12
7300.00	0.73	224.18	7299.64	-37.96	-8.37	-37.96	38.87	192.44	0.20
7400.00	0.79	224.00	7399.63	-38.91	-9.29	-38.91	40.00	193.43	0.05
7500.00	0.60	219.27	7499.62	-39.81	-10.10	-39.81	41.07	194.24	0.19
7600.00	0.66	181.35	7599.62	-40.80	-10.45	-40.80	42.11	194.37	0.42
7700.00	0.87	204.02	7699.61	-42.07	-10.77	-42.07	43.43	194.36	0.36
7800.00	0.74	214.46	7799.60	-43.30	-11.45	-43.30	44.79	194.81	0.19
7900.00	0.56	232.68	7899.59	-44.13	-12.21	-44.13	45.79	195.46	0.27
8000.00	0.74	187.14	7999.59	-45.07	-12.68	-45.07	46.82	195.71	0.53
8100.00	1.28	186.79	8099.57	-46.82	-12.89	-46.82	48.56	195.40	0.54
8200.00	1.36	193.11	8199.54	-49.08	-13.29	-49.08	50.84	195.15	0.17
8300.00	1.35	202.57	8299.52	-51.32	-14.01	-51.32	53.19	195.27	0.22
8400.00	1.56	200.88	8399.48	-53.68	-14.95	-53.68	55.72	195.56	0.22
8469.00	1.08	193.86	8468.46	-55.18	-15.44	-55.18	57.30	195.63	0.74



VES Survey International
Midland, Texas
432-563-5444

Surveyor: Adam Askew
Eata Fajita State No 011H / API 30-025-42505



-W/+E
VES Survey Date: 7/22/2015



COG Operating LLC.

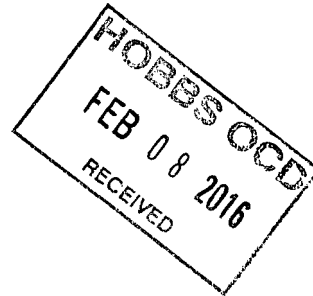
Lea County, NM
Eata Fajita State
#11H

OH

Survey: MWD #1

Survey Report - Geographic

28 July, 2015



hm



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #11H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.7usft.(Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.7usft (Original Well Elev)
Well:	#11H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Lea County, NM		
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		Eata Fajita State			
Site Position:		Northing:	446,468.40 usft	Latitude:	32° 13' 31.198 N
From:	Map	Easting:	726,689.60 usft	Longitude:	103° 36' 0.988 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	#11H					
Well Position	+N/-S	0.0 usft	Northing:	446,450.10 usft	Latitude:	32° 13' 31.046 N
	+E/-W	0.0 usft	Easting:	726,254.80 usft	Longitude:	103° 36' 6.050 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,575.7 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	4/7/2015	7.13	60.09	48,231

Design:		OH			
Audit Notes:					
Version:		1.0	Phase:		ACTUAL
			Tie On Depth:		0.0
Vertical Section:		Depth From (TVD)		+N/-S	
		(usft)		(usft)	
		0.0		0.0	
				+E/-W	
				(usft)	
				0.0	
				Direction	
				(°)	
				0.82	

Survey Program		Date	7/28/2015	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,469.0	GYRO (OH)	NS-GYRO-SS	NS Gyro single shots
8,603.0	14,201.0	MWD #1 (OH)	MWD	MWD - Standard

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,469.0	1.08	193.86	8,468.5	-55.1	-15.5	446,394.95	726,239.32	32° 13' 30.502 N	103° 36' 6.235 W
8,603.0	1.10	202.60	8,602.4	-57.6	-16.3	446,392.54	726,238.52	32° 13' 30.478 N	103° 36' 6.244 W
8,669.0	1.10	203.40	8,668.4	-58.7	-16.8	446,391.37	726,238.03	32° 13' 30.466 N	103° 36' 6.250 W
8,763.0	1.20	211.70	8,762.4	-60.4	-17.6	446,389.71	726,237.15	32° 13' 30.450 N	103° 36' 6.261 W
8,857.0	0.70	47.60	8,856.4	-60.8	-17.7	446,389.26	726,237.06	32° 13' 30.446 N	103° 36' 6.262 W
8,904.0	2.40	31.40	8,903.4	-59.8	-17.0	446,390.29	726,237.78	32° 13' 30.456 N	103° 36' 6.253 W
8,951.0	7.70	16.80	8,950.2	-56.0	-15.6	446,394.15	726,239.21	32° 13' 30.494 N	103° 36' 6.236 W
8,998.0	12.50	16.80	8,996.4	-48.1	-13.2	446,402.04	726,241.59	32° 13' 30.572 N	103° 36' 6.208 W
9,045.0	17.90	18.70	9,041.8	-36.3	-9.4	446,413.76	726,245.38	32° 13' 30.687 N	103° 36' 6.163 W
9,092.0	23.70	17.60	9,085.7	-20.5	-4.2	446,429.61	726,250.55	32° 13' 30.844 N	103° 36' 6.101 W
9,140.0	26.10	16.90	9,129.2	-1.2	1.7	446,448.91	726,256.54	32° 13' 31.035 N	103° 36' 6.030 W



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #11H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.7usft (Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.7usft (Original Well Elev)
Well:	#11H	North Reference:	Grid
Wellbore Design:	OH	Survey Calculation Method:	Minimum Curvature
	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,187.0	28.80	17.30	9,170.9	19.5	8.1	446,469.62	726,262.91	32° 13' 31.239 N	103° 36' 5.954 W
9,234.0	33.00	18.90	9,211.3	42.4	15.6	446,492.55	726,270.43	32° 13' 31.465 N	103° 36' 5.865 W
9,281.0	34.60	17.30	9,250.3	67.3	23.7	446,517.40	726,278.54	32° 13' 31.711 N	103° 36' 5.769 W
9,328.0	39.40	22.40	9,287.9	93.9	33.4	446,543.95	726,288.20	32° 13' 31.973 N	103° 36' 5.654 W
9,375.0	46.50	24.40	9,322.2	123.2	46.2	446,573.31	726,300.95	32° 13' 32.263 N	103° 36' 5.503 W
9,422.0	54.30	22.00	9,352.2	156.5	60.4	446,606.58	726,315.16	32° 13' 32.591 N	103° 36' 5.335 W
9,469.0	58.50	19.30	9,378.2	193.1	74.1	446,643.21	726,328.94	32° 13' 32.952 N	103° 36' 5.172 W
9,516.0	60.30	18.90	9,402.1	231.3	87.4	446,681.43	726,342.18	32° 13' 33.330 N	103° 36' 5.015 W
9,563.0	66.10	17.60	9,423.3	271.2	100.5	446,721.26	726,355.30	32° 13' 33.723 N	103° 36' 4.859 W
9,610.0	68.30	18.30	9,441.5	312.4	113.9	446,762.47	726,368.65	32° 13' 34.130 N	103° 36' 4.700 W
9,657.0	74.50	20.90	9,456.5	354.3	128.8	446,804.41	726,383.60	32° 13' 34.544 N	103° 36' 4.523 W
9,699.0	82.50	20.20	9,464.9	392.8	143.2	446,842.91	726,398.03	32° 13' 34.924 N	103° 36' 4.352 W
9,730.0	88.00	18.80	9,467.4	421.9	153.5	446,872.02	726,408.34	32° 13' 35.211 N	103° 36' 4.230 W
9,824.0	91.50	16.10	9,467.8	511.6	181.7	446,961.68	726,436.52	32° 13' 36.097 N	103° 36' 3.894 W
9,918.0	89.80	10.40	9,466.8	603.0	203.3	447,053.13	726,458.05	32° 13' 37.000 N	103° 36' 3.636 W
10,013.0	88.50	5.40	9,468.2	697.1	216.3	447,147.18	726,471.11	32° 13' 37.930 N	103° 36' 3.477 W
10,107.0	88.30	1.00	9,470.8	790.9	221.6	447,240.98	726,476.35	32° 13' 38.858 N	103° 36' 3.409 W
10,201.0	88.10	358.00	9,473.8	884.8	220.7	447,334.92	726,475.53	32° 13' 39.787 N	103° 36' 3.411 W
10,295.0	88.00	356.60	9,476.9	978.7	216.3	447,428.75	726,471.11	32° 13' 40.716 N	103° 36' 3.455 W
10,389.0	89.30	356.10	9,479.2	1,072.4	210.3	447,522.54	726,465.12	32° 13' 41.645 N	103° 36' 3.517 W
10,483.0	86.70	355.60	9,482.4	1,166.1	203.5	447,616.22	726,458.33	32° 13' 42.572 N	103° 36' 3.589 W
10,577.0	87.70	354.90	9,487.0	1,259.7	195.8	447,709.79	726,450.55	32° 13' 43.499 N	103° 36' 3.672 W
10,671.0	89.00	353.90	9,489.7	1,353.2	186.6	447,803.30	726,441.38	32° 13' 44.425 N	103° 36' 3.771 W
10,766.0	88.00	355.10	9,492.2	1,447.7	177.5	447,897.82	726,432.28	32° 13' 45.361 N	103° 36' 3.869 W
10,860.0	85.50	357.50	9,497.6	1,541.4	171.4	447,991.46	726,426.22	32° 13' 46.288 N	103° 36' 3.933 W
10,954.0	87.10	358.20	9,503.6	1,635.1	167.9	448,085.20	726,422.70	32° 13' 47.215 N	103° 36' 3.966 W
11,048.0	88.90	358.50	9,506.9	1,729.0	165.2	448,179.10	726,420.00	32° 13' 48.145 N	103° 36' 3.990 W
11,142.0	91.80	358.70	9,506.3	1,823.0	162.9	448,273.06	726,417.70	32° 13' 49.075 N	103° 36' 4.009 W
11,237.0	89.50	358.30	9,505.3	1,917.9	160.4	448,368.01	726,415.22	32° 13' 50.014 N	103° 36' 4.031 W
11,331.0	89.50	357.30	9,506.1	2,011.8	156.8	448,461.94	726,411.61	32° 13' 50.944 N	103° 36' 4.065 W
11,425.0	88.50	357.00	9,507.7	2,105.7	152.1	448,555.81	726,406.93	32° 13' 51.873 N	103° 36' 4.112 W
11,519.0	89.30	357.30	9,509.5	2,199.6	147.5	448,649.67	726,402.26	32° 13' 52.803 N	103° 36' 4.159 W
11,613.0	89.00	0.90	9,510.9	2,293.5	146.0	448,743.63	726,400.79	32° 13' 53.732 N	103° 36' 4.169 W
11,707.0	89.40	359.80	9,512.2	2,387.5	146.6	448,837.62	726,401.36	32° 13' 54.662 N	103° 36' 4.155 W
11,801.0	88.70	359.40	9,513.8	2,481.5	145.9	448,931.61	726,400.70	32° 13' 55.593 N	103° 36' 4.155 W
11,896.0	87.70	0.70	9,516.8	2,576.5	146.0	449,026.55	726,400.79	32° 13' 56.532 N	103° 36' 4.147 W
11,989.0	85.80	0.60	9,522.0	2,669.3	147.0	449,119.40	726,401.84	32° 13' 57.451 N	103° 36' 4.127 W
12,084.0	86.70	0.50	9,528.3	2,764.1	148.0	449,214.19	726,402.75	32° 13' 58.389 N	103° 36' 4.109 W
12,178.0	87.80	0.10	9,532.8	2,858.0	148.4	449,308.08	726,403.24	32° 13' 59.318 N	103° 36' 4.096 W
12,272.0	88.80	0.20	9,535.6	2,951.9	148.7	449,402.03	726,403.49	32° 14' 0.247 N	103° 36' 4.085 W
12,366.0	90.00	358.70	9,536.5	3,045.9	147.8	449,496.02	726,402.58	32° 14' 1.178 N	103° 36' 4.088 W
12,460.0	90.20	357.60	9,536.4	3,139.9	144.8	449,589.97	726,399.55	32° 14' 2.107 N	103° 36' 4.116 W
12,555.0	87.40	357.20	9,538.4	3,234.7	140.4	449,684.84	726,395.24	32° 14' 3.047 N	103° 36' 4.159 W
12,649.0	87.30	357.50	9,542.7	3,328.5	136.1	449,778.64	726,390.90	32° 14' 3.975 N	103° 36' 4.202 W
12,743.0	88.30	357.60	9,546.3	3,422.4	132.1	449,872.48	726,386.89	32° 14' 4.904 N	103° 36' 4.241 W
12,837.0	89.40	357.40	9,548.2	3,516.3	128.0	449,966.37	726,382.79	32° 14' 5.833 N	103° 36' 4.282 W
12,931.0	90.40	356.40	9,548.4	3,610.1	122.9	450,060.23	726,377.70	32° 14' 6.762 N	103° 36' 4.333 W
13,025.0	87.50	356.10	9,550.1	3,703.9	116.8	450,154.01	726,371.56	32° 14' 7.691 N	103° 36' 4.397 W
13,119.0	87.10	355.40	9,554.5	3,797.5	109.8	450,247.64	726,364.60	32° 14' 8.618 N	103° 36' 4.471 W
13,214.0	86.80	355.00	9,559.6	3,892.1	101.9	450,342.17	726,356.66	32° 14' 9.554 N	103° 36' 4.556 W
13,308.0	87.60	356.40	9,564.2	3,985.7	94.8	450,435.79	726,349.62	32° 14' 10.481 N	103° 36' 4.630 W
13,402.0	87.40	356.60	9,568.3	4,079.4	89.1	450,529.53	726,343.89	32° 14' 11.409 N	103° 36' 4.690 W
13,496.0	88.00	359.70	9,572.0	4,173.3	86.1	450,623.39	726,340.86	32° 14' 12.338 N	103° 36' 4.718 W
13,590.0	88.50	0.70	9,574.9	4,267.2	86.4	450,717.35	726,341.19	32° 14' 13.267 N	103° 36' 4.706 W
13,684.0	88.10	358.30	9,577.7	4,361.2	85.6	450,811.30	726,340.37	32° 14' 14.197 N	103° 36' 4.708 W



Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #11H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.7usft (Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.7usft (Original Well Elev)
Well:	#11H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,778.0	87.80	357.10	9,581.1	4,455.1	81.8	450,905.16	726,336.60	32° 14' 15.126 N	103° 36' 4.745 W
13,872.0	86.00	358.10	9,586.1	4,548.8	77.9	450,998.93	726,332.66	32° 14' 16.054 N	103° 36' 4.783 W
13,966.0	86.30	358.50	9,592.5	4,642.6	75.1	451,092.68	726,329.88	32° 14' 16.982 N	103° 36' 4.808 W
14,061.0	86.50	357.80	9,598.4	4,737.3	72.0	451,187.44	726,326.82	32° 14' 17.920 N	103° 36' 4.836 W
14,148.0	87.30	358.20	9,603.1	4,824.2	69.0	451,274.26	726,323.79	32° 14' 18.780 N	103° 36' 4.865 W
14,199.7	87.30	358.20	9,605.6	4,875.8	67.4	451,325.91	726,322.17	32° 14' 19.291 N	103° 36' 4.879 W
PBHL(EFS#11H)									
14,201.0	87.30	358.20	9,605.6	4,877.1	67.3	451,327.18	726,322.13	32° 14' 19.303 N	103° 36' 4.880 W

Checked By: _____	Approved By: _____	Date: _____
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