



January 23, 2015

30-025-41774

HOBBS OCD

JUL 07 2015

RECEIVED

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

Attn: Kanicia Castillo

RE: **Eata Fajita State 006H**

Please find enclosed a copy of the survey from 0' to 5050' ran on the above referenced well.

Sincerely,

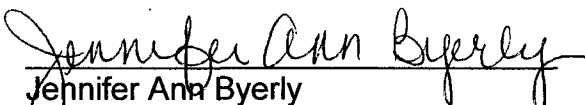

Keith Havelka
Operations

STATE OF TEXAS §

§

COUNTY OF NUECES §

This instrument was acknowledged before me on the 23 day of Jan.,
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

JUL 30 2015





Company: Concho
 Lease/Well: Eata Fajita State /006H

Rig Name: Independence 205
 State/County: New Mexico/Lea
 Latitude: 32.23, Longitude: -103.59
 GRID North is 0.40 Degrees East of True North
 VS-Azi: 357.98 Degrees



Depth Reference : 26 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
 Minimum Curvature Method
 Report Date/Time: 1/23/2015 / 12:42

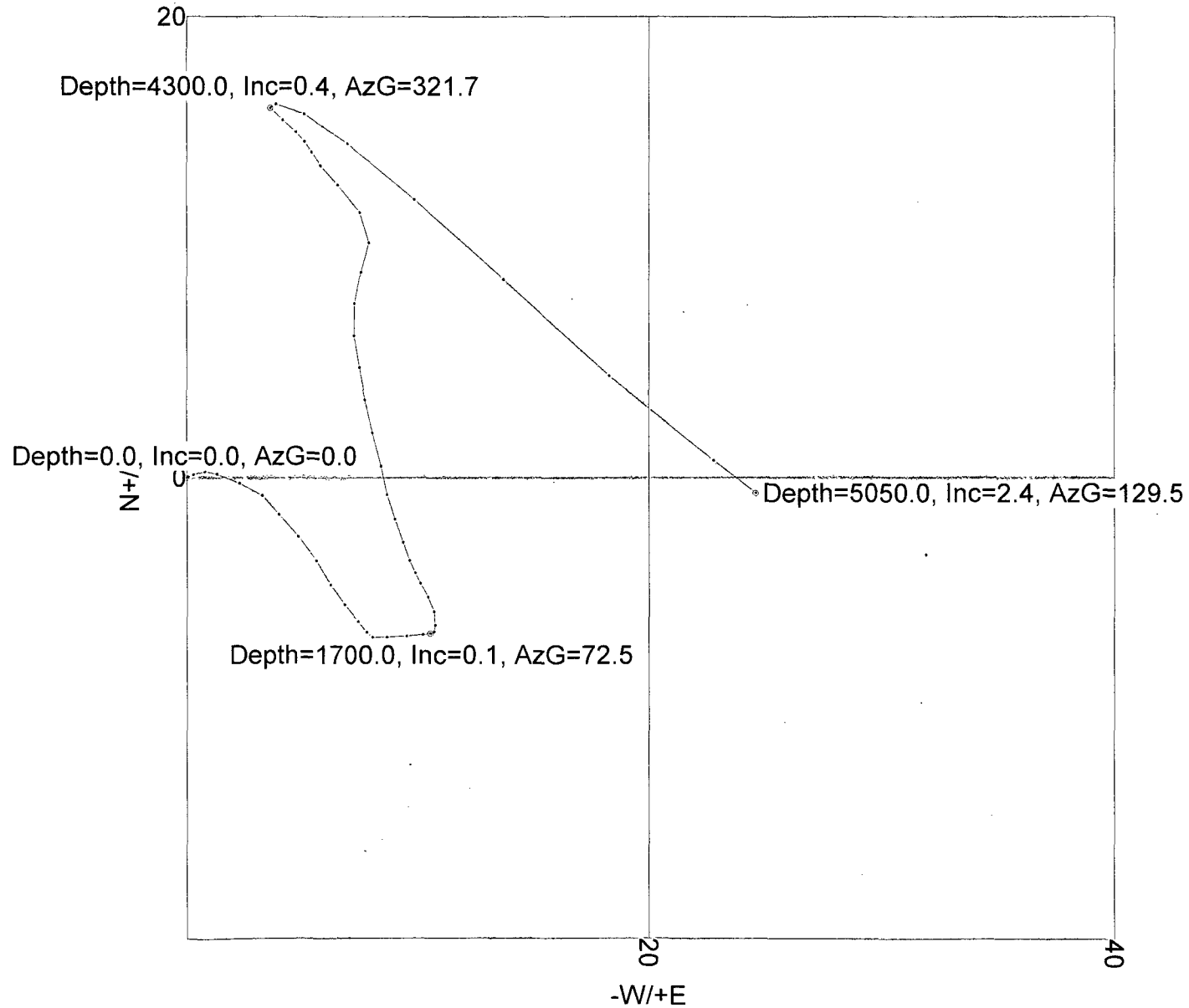
VES Survey International
 Ft.Worth Tx
 817-718-1320
 Surveyor: Jason Wilson
 Eata Fajita State 006H / API 30-025-41774

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	****
50.00	0.18	71.70	50.00	0.02	0.08	0.02	0.08	71.70	0.36
100.00	0.38	61.76	100.00	0.13	0.30	0.12	0.32	66.61	0.41
200.00	0.22	95.33	200.00	0.27	0.79	0.24	0.83	71.14	0.23
300.00	0.41	105.20	300.00	0.16	1.32	0.11	1.33	83.27	0.19
400.00	0.79	115.58	399.99	-0.24	2.29	-0.32	2.31	95.88	0.40
500.00	0.50	122.53	499.98	-0.77	3.29	-0.89	3.38	103.19	0.30
600.00	0.78	148.07	599.98	-1.59	4.02	-1.73	4.32	111.54	0.39
700.00	0.71	127.73	699.97	-2.54	4.87	-2.71	5.49	117.59	0.27
800.00	0.84	155.85	799.96	-3.59	5.66	-3.79	6.70	122.42	0.40
900.00	0.56	141.14	899.95	-4.65	6.26	-4.86	7.80	126.56	0.33
1000.00	0.64	146.51	999.95	-5.49	6.88	-5.73	8.81	128.61	0.10
1100.00	0.48	131.33	1099.94	-6.24	7.50	-6.50	9.76	129.73	0.22
1200.00	0.22	171.57	1199.94	-6.70	7.84	-6.97	10.32	130.51	0.34
1300.00	0.25	96.80	1299.94	-6.92	8.09	-7.20	10.65	130.53	0.29
1400.00	0.47	85.62	1399.94	-6.91	8.72	-7.22	11.13	128.39	0.23
1500.00	0.50	87.46	1499.94	-6.86	9.57	-7.19	11.78	125.64	0.03
1600.00	0.31	81.67	1599.93	-6.80	10.27	-7.16	12.32	123.52	0.19
1700.00	0.07	72.50	1699.93	-6.74	10.60	-7.11	12.56	122.47	0.24

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
1800.00	0.11	64.87	1799.93	-6.68	10.75	-7.06	12.66	121.88	0.04
1900.00	0.29	352.41	1899.93	-6.39	10.80	-6.77	12.55	120.61	0.28
2000.00	0.38	352.87	1999.93	-5.80	10.72	-6.18	12.19	118.42	0.09
2100.00	0.42	326.29	2099.93	-5.16	10.48	-5.53	11.68	116.23	0.19
2200.00	0.34	336.48	2199.92	-4.58	10.15	-4.93	11.14	114.28	0.11
2300.00	0.23	331.36	2299.92	-4.13	9.93	-4.47	10.76	112.55	0.12
2400.00	0.45	336.85	2399.92	-3.59	9.68	-3.93	10.33	110.34	0.22
2500.00	0.52	344.17	2499.92	-2.80	9.41	-3.13	9.82	106.58	0.09
2600.00	0.70	338.17	2599.91	-1.80	9.06	-2.12	9.23	101.23	0.20
2700.00	0.58	347.42	2699.91	-0.73	8.72	-1.04	8.75	94.81	0.16
2800.00	0.86	349.06	2799.90	0.49	8.47	0.20	8.48	86.66	0.28
2900.00	0.87	342.22	2899.89	1.95	8.09	1.66	8.33	76.47	0.10
3000.00	0.82	353.32	2999.88	3.38	7.78	3.10	8.48	66.54	0.17
3100.00	0.81	349.15	3099.87	4.78	7.56	4.51	8.95	57.70	0.06
3200.00	0.79	351.47	3199.86	6.16	7.33	5.90	9.58	49.94	0.04
3300.00	0.83	9.92	3299.85	7.56	7.35	7.30	10.54	44.20	0.26
3400.00	0.75	12.73	3399.84	8.91	7.62	8.64	11.73	40.53	0.09
3500.00	0.76	14.94	3499.83	10.19	7.94	9.91	12.92	37.90	0.03
3600.00	0.97	322.19	3599.82	11.50	7.59	11.23	13.78	33.40	0.79
3700.00	0.81	317.61	3699.81	12.70	6.59	12.46	14.30	27.42	0.18
3800.00	0.46	321.19	3799.80	13.53	5.86	13.31	14.74	23.43	0.36
3900.00	0.37	328.53	3899.80	14.11	5.45	13.91	15.13	21.11	0.10
4000.00	0.27	322.08	3999.80	14.57	5.14	14.38	15.45	19.42	0.11
4100.00	0.38	316.17	4099.79	14.99	4.76	14.81	15.73	17.63	0.12
4200.00	0.50	308.82	4199.79	15.50	4.20	15.34	16.06	15.14	0.13
4300.00	0.38	321.69	4299.79	16.03	3.65	15.89	16.44	12.84	0.15
4400.00	0.53	101.40	4399.79	16.20	3.90	16.05	16.66	13.55	0.86
4500.00	0.97	113.40	4499.78	15.77	5.13	15.58	16.59	18.03	0.46
4600.00	1.67	130.49	4599.75	14.49	7.02	14.23	16.10	25.85	0.80
4700.00	2.65	129.62	4699.68	12.07	9.91	11.71	15.62	39.39	0.98
4800.00	3.27	134.21	4799.55	8.61	13.74	8.12	16.21	57.93	0.67
4900.00	3.81	130.95	4899.35	4.44	18.29	3.79	18.82	76.36	0.57
5000.00	2.86	127.36	4999.18	0.75	22.78	-0.05	22.79	88.11	0.97
5050.00	2.39	129.46	5049.13	-0.67	24.57	-1.53	24.58	91.56	0.95



VES Survey International
Ft.Worth Tx
817-718-1320
Surveyor: Jason Wilson
Eata Fajita State 006H / API 30-025-41774



VES Survey Date: 1/18/2015

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Eata Fajita State Well No. 6H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Site:	Eata Fajita State	MD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Well:	Eata Fajita State Well No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	Dbase Nov0914

Project	Lea County, New Mexico		
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:	446,481.60 usft	Latitude:	32.22530654
From:	Map	Easting:	730,002.10 usft	Longitude:	-103.58956297
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	Eata Fajita State Well No. 6H, Surf Loc: 190 FSL 1980 FEL Sect 8 T24S R33E Unit O					
Well Position	+N/-S	0.00 usft	Northing:	446,482.90 usft	Latitude:	32.22532275
	+E/-W	0.00 usft	Easting:	729,337.20 usft	Longitude:	-103.59171291
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,592.60 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/30/2014	7.16	60.10	48,259

Design	Surveys Original Hole				
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	357.98	

Survey Program	Date	2/1/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
50.00	5,050.00	Gyro (Original Hole)	NS-GYRO-MS	North sensing gyrocompassing m/s	
5,097.00	19,372.00	MWD (Original Hole)	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	
0.00	0.00	0.00	0.00	0.00	0.00	446,482.90	729,337.20	32.22532275	-103.59171291	
50.00	0.18	71.70	50.00	0.02	0.07	446,482.92	729,337.27	32.22532281	-103.59171267	
Gyro										
100.00	0.38	61.76	100.00	0.13	0.30	446,483.03	729,337.49	32.22532309	-103.59171195	
200.00	0.22	95.33	200.00	0.27	0.78	446,483.17	729,337.97	32.22532347	-103.59171038	
300.00	0.41	105.20	300.00	0.16	1.31	446,483.06	729,338.51	32.22532315	-103.59170865	
400.00	0.79	115.58	399.99	-0.24	2.28	446,482.66	729,339.48	32.22532206	-103.59170553	
500.00	0.50	122.53	499.98	-0.77	3.27	446,482.13	729,340.47	32.22532057	-103.59170235	
600.00	0.78	148.07	599.98	-1.58	4.00	446,481.32	729,341.20	32.22531833	-103.59170001	

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Eata Fajita State Well No. 6H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Site:	Eata Fajita State	MD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Well:	Eata Fajita State Well No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	Dbase Nov0914

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
700.00	0.71	127.73	699.97	-2.54	4.85	446,480.36	729,342.05	32.22531568	-103.59169728	
800.00	0.84	155.85	799.96	-3.59	5.64	446,479.31	729,342.84	32.22531278	-103.59169475	
900.00	0.56	141.14	899.95	-4.64	6.25	446,478.26	729,343.44	32.22530989	-103.59169281	
1,000.00	0.64	146.51	999.95	-5.48	6.86	446,477.42	729,344.06	32.22530755	-103.59169085	
1,100.00	0.48	131.33	1,099.94	-6.22	7.48	446,476.68	729,344.68	32.22530550	-103.59168885	
1,200.00	0.22	171.57	1,199.94	-6.69	7.83	446,476.21	729,345.02	32.22530421	-103.59168775	
1,300.00	0.25	96.80	1,299.94	-6.91	8.07	446,475.99	729,345.27	32.22530361	-103.59168696	
1,400.00	0.47	85.62	1,399.94	-6.90	8.70	446,476.00	729,345.89	32.22530361	-103.59168494	
1,500.00	0.50	87.46	1,499.94	-6.85	9.54	446,476.05	729,346.74	32.22530374	-103.59168221	
1,600.00	0.31	81.67	1,599.93	-6.79	10.24	446,476.11	729,347.44	32.22530389	-103.59167993	
1,700.00	0.07	72.50	1,699.93	-6.73	10.57	446,476.17	729,347.77	32.22530404	-103.59167888	
1,800.00	0.11	64.87	1,799.93	-6.67	10.72	446,476.23	729,347.91	32.22530420	-103.59167841	
1,900.00	0.29	352.41	1,899.93	-6.38	10.77	446,476.52	729,347.97	32.22530500	-103.59167823	
2,000.00	0.38	352.87	1,999.93	-5.80	10.69	446,477.10	729,347.89	32.22530659	-103.59167845	
2,100.00	0.42	326.29	2,099.93	-5.17	10.45	446,477.73	729,347.65	32.22530834	-103.59167923	
2,200.00	0.34	336.48	2,199.93	-4.59	10.13	446,478.31	729,347.32	32.22530993	-103.59168026	
2,300.00	0.23	331.36	2,299.92	-4.14	9.91	446,478.76	729,347.11	32.22531117	-103.59168094	
2,400.00	0.45	336.85	2,399.92	-3.61	9.66	446,479.29	729,346.86	32.22531265	-103.59168174	
2,500.00	0.52	344.17	2,499.92	-2.81	9.39	446,480.09	729,346.58	32.22531485	-103.59168262	
2,600.00	0.70	338.17	2,599.91	-1.81	9.03	446,481.09	729,346.23	32.22531761	-103.59168374	
2,700.00	0.58	347.42	2,699.91	-0.74	8.70	446,482.16	729,345.89	32.22532054	-103.59168480	
2,800.00	0.86	349.06	2,799.90	0.49	8.44	446,483.39	729,345.64	32.22532392	-103.59168559	
2,900.00	0.87	342.22	2,899.89	1.95	8.07	446,484.85	729,345.27	32.22532794	-103.59168677	
3,000.00	0.82	353.32	2,999.88	3.38	7.75	446,486.28	729,344.95	32.22533189	-103.59168776	
3,100.00	0.81	349.15	3,099.87	4.78	7.54	446,487.68	729,344.73	32.22533576	-103.59168842	
3,200.00	0.79	351.47	3,199.86	6.16	7.30	446,489.06	729,344.50	32.22533954	-103.59168915	
3,300.00	0.83	9.92	3,299.85	7.56	7.33	446,490.46	729,344.52	32.22534338	-103.59168905	
3,400.00	0.75	12.73	3,399.84	8.91	7.59	446,491.81	729,344.79	32.22534709	-103.59168815	
3,500.00	0.76	14.94	3,499.83	10.19	7.91	446,493.09	729,345.11	32.22535060	-103.59168710	
3,600.00	0.97	322.19	3,599.82	11.50	7.56	446,494.40	729,344.76	32.22535420	-103.59168820	
3,700.00	0.81	317.61	3,699.81	12.69	6.57	446,495.59	729,343.76	32.22535750	-103.59169139	
3,800.00	0.46	321.19	3,799.80	13.52	5.84	446,496.42	729,343.03	32.22535981	-103.59169373	
3,900.00	0.37	328.53	3,899.80	14.11	5.42	446,497.01	729,342.61	32.22536143	-103.59169507	
4,000.00	0.27	322.08	3,999.80	14.57	5.11	446,497.47	729,342.30	32.22536270	-103.59169608	
4,100.00	0.38	316.17	4,099.79	15.00	4.73	446,497.90	729,341.93	32.22536388	-103.59169728	
4,200.00	0.50	308.82	4,199.79	15.51	4.16	446,498.41	729,341.36	32.22536530	-103.59169911	
4,300.00	0.38	321.69	4,299.79	16.04	3.62	446,498.94	729,340.81	32.22536678	-103.59170086	
4,400.00	0.53	101.40	4,399.79	16.21	3.86	446,499.11	729,341.06	32.22536724	-103.59170005	
4,500.00	0.97	113.40	4,499.78	15.78	5.09	446,498.68	729,342.29	32.22536604	-103.59169609	
4,600.00	1.67	130.49	4,599.75	14.50	6.98	446,497.40	729,344.17	32.22536248	-103.59169002	
4,700.00	2.65	129.62	4,699.68	12.08	9.87	446,494.98	729,347.06	32.22535577	-103.59168073	
4,800.00	3.27	134.21	4,799.55	8.62	13.69	446,491.52	729,350.89	32.22534618	-103.59166844	
4,900.00	3.81	130.95	4,899.35	4.45	18.25	446,487.35	729,355.44	32.22533464	-103.59165381	
5,000.00	2.86	127.36	4,999.18	0.76	22.74	446,483.66	729,359.94	32.22532441	-103.59163936	
5,050.00	2.39	129.46	5,049.13	-0.66	24.54	446,482.24	729,361.73	32.22532047	-103.59163359	
5,097.00	2.13	128.79	5,096.10	-1.83	25.97	446,481.07	729,363.17	32.22531723	-103.59162897	
MWD surveys										
5,211.00	1.50	126.20	5,210.04	-4.04	28.83	446,478.86	729,366.02	32.22531110	-103.59161978	
5,305.00	1.50	123.40	5,304.01	-5.44	30.85	446,477.46	729,368.04	32.22530721	-103.59161328	
5,399.00	0.50	121.10	5,397.99	-6.33	32.23	446,476.57	729,369.42	32.22530474	-103.59160885	
5,493.00	0.50	124.00	5,491.99	-6.77	32.92	446,476.13	729,370.11	32.22530351	-103.59160662	
5,587.00	0.50	138.00	5,585.98	-7.31	33.53	446,475.59	729,370.73	32.22530203	-103.59160465	
5,681.00	0.40	146.00	5,679.98	-7.88	33.99	446,475.02	729,371.19	32.22530044	-103.59160318	



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Eata Fajita State Well No. 6H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Site:	Eata Fajita State	MD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Well:	Eata Fajita State Well No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	Dbase Nov0914

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,775.00	0.50	141.50	5,773.98	-8.48	34.43	446,474.42	729,371.62	32.22529880	-103.59160177
5,869.00	0.30	320.40	5,867.98	-8.61	34.53	446,474.29	729,371.72	32.22529844	-103.59160146
5,963.00	0.50	306.40	5,961.97	-8.17	34.04	446,474.73	729,371.24	32.22529964	-103.59160302
6,057.00	0.50	290.90	6,055.97	-7.78	33.33	446,475.12	729,370.52	32.22530072	-103.59160532
6,152.00	0.70	286.60	6,150.96	-7.47	32.38	446,475.43	729,369.58	32.22530160	-103.59160836
6,246.00	0.70	285.40	6,244.96	-7.15	31.28	446,475.75	729,368.48	32.22530249	-103.59161193
6,340.00	0.80	290.70	6,338.95	-6.77	30.11	446,476.13	729,367.31	32.22530357	-103.59161569
6,434.00	0.70	294.80	6,432.94	-6.30	28.98	446,476.60	729,366.17	32.22530489	-103.59161935
6,528.00	0.70	296.70	6,526.93	-5.80	27.94	446,477.10	729,365.14	32.22530628	-103.59162268
6,622.00	0.80	293.60	6,620.93	-5.28	26.83	446,477.62	729,364.02	32.22530773	-103.59162628
6,716.00	1.00	290.80	6,714.91	-4.72	25.46	446,478.18	729,362.66	32.22530928	-103.59163069
6,810.00	1.30	297.80	6,808.90	-3.93	23.75	446,478.97	729,360.95	32.22531148	-103.59163620
6,904.00	0.60	355.90	6,902.88	-2.95	22.77	446,479.95	729,359.97	32.22531422	-103.59163934
6,998.00	0.80	9.10	6,996.88	-1.81	22.84	446,481.09	729,360.04	32.22531735	-103.59163909
7,092.00	0.60	359.70	7,090.87	-0.67	22.94	446,482.23	729,360.14	32.22532048	-103.59163874
7,186.00	0.50	3.10	7,184.87	0.23	22.96	446,483.13	729,360.16	32.22532296	-103.59163866
7,280.00	0.40	1.40	7,278.86	0.97	22.99	446,483.87	729,360.19	32.22532498	-103.59163854
7,374.00	0.20	314.10	7,372.86	1.41	22.88	446,484.31	729,360.08	32.22532620	-103.59163889
7,468.00	0.40	264.20	7,466.86	1.50	22.44	446,484.40	729,359.63	32.22532643	-103.59164032
7,562.00	0.50	266.70	7,560.86	1.44	21.70	446,484.34	729,358.90	32.22532629	-103.59164270
7,657.00	0.70	284.00	7,655.85	1.56	20.72	446,484.46	729,357.92	32.22532663	-103.59164586
7,751.00	0.80	271.00	7,749.84	1.71	19.51	446,484.61	729,356.71	32.22532707	-103.59164978
7,845.00	0.40	258.00	7,843.84	1.65	18.53	446,484.55	729,355.73	32.22532693	-103.59165294
7,939.00	0.10	252.60	7,937.84	1.56	18.13	446,484.46	729,355.33	32.22532668	-103.59165423
8,033.00	0.00	296.80	8,031.84	1.53	18.06	446,484.43	729,355.25	32.22532662	-103.59165449
8,127.00	0.10	226.80	8,125.84	1.48	18.00	446,484.38	729,355.19	32.22532646	-103.59165468
8,221.00	0.30	191.00	8,219.84	1.18	17.89	446,484.08	729,355.09	32.22532565	-103.59165503
8,315.00	0.40	188.50	8,313.84	0.61	17.79	446,483.51	729,354.99	32.22532409	-103.59165536
8,409.00	0.50	196.10	8,407.83	-0.11	17.63	446,482.79	729,354.83	32.22532212	-103.59165590
8,503.00	0.70	195.40	8,501.83	-1.05	17.37	446,481.85	729,354.56	32.22531952	-103.59165678
8,598.00	0.90	190.00	8,596.82	-2.35	17.08	446,480.55	729,354.28	32.22531597	-103.59165772
8,692.00	0.80	187.90	8,690.81	-3.73	16.86	446,479.17	729,354.06	32.22531219	-103.59165846
8,786.00	0.80	187.30	8,784.80	-5.03	16.69	446,477.87	729,353.89	32.22530861	-103.59165905
8,880.00	0.70	196.90	8,878.79	-6.23	16.44	446,476.67	729,353.64	32.22530532	-103.59165989
8,974.00	0.70	189.70	8,972.78	-7.34	16.18	446,475.56	729,353.37	32.22530226	-103.59166077
9,022.00	0.60	190.70	9,020.78	-7.88	16.08	446,475.02	729,353.28	32.22530079	-103.59166109
9,074.00	0.90	307.20	9,072.78	-7.90	15.70	446,475.00	729,352.90	32.22530074	-103.59166230
9,136.00	6.70	335.20	9,134.62	-4.32	13.80	446,478.58	729,350.99	32.22531062	-103.59166839
9,168.00	9.60	343.30	9,166.29	-0.07	12.25	446,482.83	729,349.44	32.22532233	-103.59167331
9,199.00	12.50	348.20	9,196.71	5.69	10.82	446,488.59	729,348.01	32.22533820	-103.59167780
9,230.00	13.60	349.80	9,226.91	12.57	9.49	446,495.47	729,346.68	32.22535711	-103.59168195
9,262.00	15.70	351.00	9,257.87	20.55	8.14	446,503.45	729,345.34	32.22537907	-103.59168612
9,278.00	16.70	351.00	9,273.24	24.95	7.44	446,507.85	729,344.64	32.22539120	-103.59168828
9,309.00	19.70	349.90	9,302.68	34.50	5.83	446,517.40	729,343.03	32.22541747	-103.59169328
9,340.00	23.80	350.30	9,331.47	45.81	3.86	446,528.71	729,341.06	32.22544861	-103.59169940
9,372.00	29.50	350.60	9,360.06	59.96	1.48	446,542.86	729,338.68	32.22548755	-103.59170677
9,403.00	34.10	350.50	9,386.40	76.07	-1.20	446,558.97	729,336.00	32.22553188	-103.59171509
9,434.00	36.90	351.50	9,411.63	93.85	-4.01	446,576.75	729,333.19	32.22558080	-103.59172378
9,466.00	41.00	351.50	9,436.51	113.74	-6.98	446,596.64	729,330.21	32.22563553	-103.59173294
9,497.00	45.10	350.60	9,459.16	134.64	-10.28	446,617.54	729,326.92	32.22569304	-103.59174314
9,505.00	46.18	350.41	9,464.76	140.28	-11.22	446,623.18	729,325.97	32.22570856	-103.59174607
330 Hard line intercept @ 9505 MD									
9,528.00	49.30	349.90	9,480.22	157.05	-14.14	446,639.95	729,323.06	32.22575472	-103.59175511

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Eata Fajita State Well No. 6H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Site:	Eata Fajita State	MD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Well:	Eata Fajita State Well No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	Dbase Nov0914

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,560.00	54.30	349.10	9,500.00	181.77	-18.72	446,664.67	729,318.47	32.22582274	-103.59176939
9,591.00	59.60	348.20	9,516.90	207.23	-23.84	446,690.13	729,313.36	32.22589284	-103.59178537
9,623.00	64.10	346.60	9,532.00	234.76	-30.00	446,717.66	729,307.20	32.22596862	-103.59180468
9,654.00	68.20	345.40	9,544.53	262.26	-36.86	446,745.16	729,300.33	32.22604434	-103.59182625
9,685.00	72.40	344.10	9,554.98	290.41	-44.54	446,773.31	729,292.65	32.22612187	-103.59185046
9,695.00	73.90	343.30	9,557.88	299.60	-47.23	446,782.50	729,289.97	32.22614717	-103.59185894
9,732.00	79.10	339.40	9,566.51	333.66	-58.74	446,816.56	729,278.46	32.22624102	-103.59189540
9,763.00	81.60	339.70	9,571.71	362.30	-69.42	446,845.20	729,267.78	32.22631993	-103.59192928
9,795.00	84.30	340.10	9,575.64	392.12	-80.33	446,875.02	729,256.87	32.22640211	-103.59196391
9,826.00	86.60	340.10	9,578.10	421.17	-90.85	446,904.07	729,246.35	32.22648217	-103.59199727
9,920.00	88.50	339.60	9,582.12	509.33	-123.20	446,992.23	729,214.00	32.22672512	-103.59209991
10,014.00	91.30	339.00	9,582.28	597.26	-156.42	447,080.16	729,180.78	32.22696743	-103.59220537
10,108.00	91.00	340.80	9,580.39	685.51	-188.72	447,168.41	729,148.48	32.22721063	-103.59230784
10,203.00	90.70	342.70	9,578.98	775.72	-218.46	447,258.62	729,118.73	32.22745915	-103.59240201
10,297.00	89.30	345.90	9,578.98	866.20	-243.89	447,349.10	729,093.30	32.22770834	-103.59248223
10,391.00	90.10	349.10	9,579.48	957.95	-264.24	447,440.85	729,072.96	32.22796095	-103.59254597
10,485.00	90.10	352.20	9,579.31	1,050.69	-279.51	447,533.59	729,057.69	32.22821616	-103.59259327
10,579.00	89.00	355.20	9,580.05	1,144.11	-289.82	447,627.01	729,047.38	32.22847313	-103.59262454
10,673.00	89.40	356.10	9,581.36	1,237.83	-296.95	447,720.73	729,040.25	32.22873088	-103.59264551
10,767.00	90.30	359.40	9,581.61	1,331.74	-300.64	447,814.64	729,036.56	32.22898910	-103.59265534
10,861.00	90.20	358.70	9,581.20	1,425.73	-302.20	447,908.63	729,035.00	32.22924747	-103.59265829
10,956.00	91.40	358.60	9,579.87	1,520.69	-304.44	448,003.59	729,032.76	32.22950854	-103.59266341
11,050.00	93.20	359.30	9,576.10	1,614.60	-306.16	448,097.50	729,031.04	32.22976669	-103.59266688
11,144.00	90.80	359.80	9,572.82	1,708.53	-306.89	448,191.43	729,030.30	32.23002491	-103.59266717
11,238.00	90.50	359.80	9,571.75	1,802.52	-307.22	448,285.42	729,029.97	32.23028328	-103.59266614
11,332.00	91.50	0.00	9,570.11	1,896.51	-307.39	448,379.41	729,029.81	32.23054162	-103.59266457
11,427.00	89.20	358.60	9,569.53	1,991.49	-308.55	448,474.39	729,028.65	32.23080273	-103.59266621
11,520.00	90.30	358.60	9,569.94	2,084.46	-310.82	448,567.36	729,026.38	32.23105832	-103.59267148
11,614.00	91.30	358.90	9,568.63	2,178.43	-312.87	448,661.33	729,024.33	32.23131665	-103.59267602
11,708.00	89.40	358.00	9,568.05	2,272.38	-315.41	448,755.28	729,021.78	32.23157497	-103.59268214
11,802.00	90.90	358.00	9,567.81	2,366.32	-318.69	448,849.22	729,018.50	32.23183325	-103.59269066
11,897.00	87.50	358.20	9,569.13	2,461.25	-321.84	448,944.15	729,015.35	32.23209424	-103.59269872
11,991.00	87.50	1.70	9,573.23	2,555.14	-321.92	449,038.04	729,015.27	32.23235234	-103.59269690
12,085.00	89.00	3.30	9,576.10	2,649.00	-317.83	449,131.90	729,019.37	32.23261026	-103.59268155
12,179.00	89.40	1.90	9,577.42	2,742.90	-313.56	449,225.80	729,023.63	32.23286826	-103.59266567
12,272.00	89.20	1.40	9,578.55	2,835.85	-310.88	449,318.75	729,026.31	32.23312372	-103.59265494
12,367.00	91.60	1.00	9,577.89	2,930.82	-308.89	449,413.72	729,028.30	32.23338473	-103.59264639
12,461.00	88.00	1.50	9,578.22	3,024.78	-306.84	449,507.68	729,030.35	32.23364297	-103.59263766
12,555.00	88.30	1.90	9,581.25	3,118.69	-304.06	449,601.59	729,033.14	32.23390105	-103.59262655
12,649.00	88.60	0.30	9,583.79	3,212.64	-302.25	449,695.54	729,034.94	32.23415925	-103.59261862
12,743.00	91.00	359.80	9,584.12	3,306.63	-302.17	449,789.53	729,035.02	32.23441761	-103.59261626
12,837.00	92.90	358.90	9,580.92	3,400.56	-303.24	449,883.46	729,033.96	32.23467584	-103.59261761
12,931.00	94.40	358.60	9,574.94	3,494.35	-305.28	449,977.25	729,031.91	32.23493366	-103.59262214
13,025.00	93.50	357.70	9,568.46	3,588.07	-308.31	450,070.97	729,028.89	32.23519135	-103.59262984
13,119.00	91.50	357.20	9,564.36	3,681.89	-312.49	450,164.79	729,024.71	32.23544930	-103.59264126
13,213.00	88.40	357.90	9,564.45	3,775.79	-316.51	450,258.69	729,020.69	32.23570749	-103.59265216
13,308.00	87.90	357.20	9,567.51	3,870.65	-320.57	450,353.55	729,016.63	32.23596832	-103.59266317
13,402.00	88.30	357.30	9,570.63	3,964.49	-325.07	450,447.39	729,012.12	32.23622635	-103.59267565
13,496.00	88.50	356.40	9,573.25	4,058.31	-330.24	450,541.21	729,006.96	32.23648434	-103.59269026
13,590.00	88.30	357.70	9,575.88	4,152.15	-335.07	450,635.05	729,002.12	32.23674236	-103.59270380
13,684.00	89.90	359.30	9,577.36	4,246.10	-337.53	450,729.00	728,999.66	32.23700066	-103.59270966
13,778.00	90.80	1.20	9,576.78	4,340.09	-337.12	450,822.99	729,000.07	32.23725901	-103.59270624
13,872.00	92.00	0.70	9,574.49	4,434.05	-335.56	450,916.95	729,001.63	32.23751725	-103.59269911



Survey Report - Geographic



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Eata Fajita State Well No. 6H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Site:	Eata Fajita State	MD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Well:	Eata Fajita State Well No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	Dbase Nov0914

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,966.00	92.60	0.10	9,570.71	4,527.97	-334.91	451,010.87	729,002.29	32.23777540	-103.59269489
14,069.00	90.70	0.00	9,567.75	4,630.92	-334.82	451,113.82	729,002.38	32.23805839	-103.59269231
14,163.00	91.70	359.30	9,565.78	4,724.90	-335.39	451,207.80	729,001.80	32.23831672	-103.59269207
14,257.00	90.80	0.50	9,563.73	4,818.87	-335.56	451,301.77	729,001.64	32.23857503	-103.59269050
14,351.00	90.10	0.50	9,562.99	4,912.86	-334.74	451,395.76	729,002.46	32.23883338	-103.59268575
14,445.00	88.60	0.10	9,564.06	5,006.85	-334.24	451,489.75	729,002.95	32.23909173	-103.59268206
14,539.00	89.30	0.70	9,565.78	5,100.83	-333.59	451,583.73	729,003.61	32.23935005	-103.59267785
14,633.00	89.40	0.80	9,566.85	5,194.82	-332.36	451,677.72	729,004.84	32.23960837	-103.59267177
14,728.00	89.60	0.80	9,567.67	5,289.81	-331.03	451,772.71	729,006.17	32.23986944	-103.59266536
14,822.00	90.30	0.70	9,567.76	5,383.80	-329.80	451,866.70	729,007.40	32.24012778	-103.59265929
14,916.00	90.90	0.80	9,566.77	5,477.78	-328.57	451,960.68	729,008.63	32.24038610	-103.59265321
15,010.00	91.70	1.00	9,564.64	5,571.75	-327.09	452,054.65	729,010.10	32.24064435	-103.59264634
15,105.00	90.20	2.60	9,563.06	5,666.68	-324.11	452,149.58	729,013.09	32.24090525	-103.59263458
15,199.00	89.90	1.50	9,562.98	5,760.62	-320.75	452,243.52	729,016.45	32.24116340	-103.59262161
15,293.00	90.60	2.40	9,562.57	5,854.56	-317.55	452,337.46	729,019.65	32.24142156	-103.59260917
15,387.00	91.50	1.40	9,560.85	5,948.49	-314.43	452,431.39	729,022.76	32.24167970	-103.59259699
15,481.00	90.30	358.90	9,559.37	6,042.47	-314.19	452,525.37	729,023.01	32.24193802	-103.59259410
15,575.00	90.70	358.70	9,558.55	6,136.45	-316.16	452,619.35	729,021.04	32.24219637	-103.59259837
15,669.00	91.80	358.70	9,556.50	6,230.40	-318.29	452,713.30	729,018.91	32.24245466	-103.59259317
15,763.00	91.00	0.10	9,554.21	6,324.36	-319.27	452,807.26	729,017.92	32.24271296	-103.59260426
15,857.00	90.00	359.40	9,553.38	6,418.36	-319.68	452,901.26	729,017.51	32.24297134	-103.59260349
15,951.00	89.20	0.30	9,554.04	6,512.35	-319.93	452,995.25	729,017.27	32.24322971	-103.59260219
16,045.00	89.10	0.70	9,555.44	6,606.34	-319.11	453,089.24	729,018.09	32.24348804	-103.59259744
16,139.00	89.10	0.30	9,556.91	6,700.32	-318.29	453,183.22	729,018.91	32.24374637	-103.59259269
16,234.00	90.00	359.60	9,557.66	6,795.32	-318.37	453,278.22	729,018.83	32.24400749	-103.59259084
16,328.00	90.80	0.50	9,557.00	6,889.32	-318.29	453,372.22	729,018.91	32.24426586	-103.59258847
16,422.00	90.10	359.30	9,556.26	6,983.31	-318.45	453,466.21	729,018.74	32.24452423	-103.59258691
16,516.00	90.80	359.10	9,555.53	7,077.30	-319.76	453,560.20	729,017.43	32.24478260	-103.59258906
16,610.00	89.40	358.20	9,555.36	7,171.27	-321.98	453,654.17	729,015.22	32.24504095	-103.59259412
16,704.00	88.60	356.30	9,557.00	7,265.14	-326.49	453,748.04	729,010.71	32.24529906	-103.59260661
16,798.00	89.00	355.60	9,558.97	7,358.88	-333.13	453,841.78	729,004.07	32.24555687	-103.59262598
16,892.00	88.90	358.00	9,560.69	7,452.72	-338.37	453,935.62	728,998.82	32.24581489	-103.59264086
16,986.00	89.50	358.60	9,562.01	7,546.66	-341.16	454,029.56	728,996.04	32.24607318	-103.59264778
17,081.00	90.20	358.70	9,562.25	7,641.64	-343.40	454,124.54	728,993.80	32.24633428	-103.59265290
17,175.00	91.10	358.00	9,561.19	7,735.59	-346.10	454,218.49	728,991.09	32.24659259	-103.59265956
17,269.00	90.80	358.00	9,559.63	7,829.52	-349.38	454,312.42	728,987.81	32.24685084	-103.59266807
17,363.00	91.10	357.90	9,558.07	7,923.45	-352.75	454,406.35	728,984.45	32.24710908	-103.59267685
17,457.00	92.90	358.40	9,554.79	8,017.34	-355.78	454,500.24	728,981.42	32.24736722	-103.59268456
17,551.00	90.70	359.80	9,551.84	8,111.27	-357.25	454,594.17	728,979.94	32.24762545	-103.59268724
17,646.00	89.60	0.30	9,551.59	8,206.27	-357.17	454,688.17	728,980.02	32.24788368	-103.59268485
17,751.00	90.30	359.40	9,551.68	8,311.27	-357.45	454,794.17	728,979.75	32.24814159	-103.59268340
17,845.00	91.70	359.30	9,550.04	8,405.24	-358.51	454,888.14	728,978.68	32.24840353	-103.59268475
17,939.00	90.60	359.10	9,548.15	8,499.21	-359.82	454,982.11	728,977.37	32.24866186	-103.59268690
18,033.00	91.40	2.10	9,546.51	8,593.18	-358.84	455,076.08	728,978.36	32.24892014	-103.59268162
18,127.00	90.60	1.50	9,544.87	8,687.12	-355.89	455,170.02	728,981.31	32.24917842	-103.59266997
18,221.00	89.40	0.80	9,544.87	8,781.10	-354.00	455,264.00	728,983.19	32.24943670	-103.59266178
18,315.00	91.30	2.10	9,544.30	8,875.06	-351.62	455,357.96	728,985.57	32.24969498	-103.59265199
18,409.00	92.00	1.20	9,541.59	8,968.98	-348.92	455,451.88	728,988.28	32.24995326	-103.59264114
18,503.00	91.40	1.40	9,538.80	9,062.92	-346.79	455,545.82	728,990.41	32.25021154	-103.59263215
18,597.00	88.30	0.80	9,539.05	9,156.89	-344.98	455,639.79	728,992.21	32.25046982	-103.59262422
18,691.00	88.50	0.30	9,541.67	9,250.84	-344.08	455,733.74	728,993.12	32.25072810	-103.59261920
18,785.00	88.60	358.20	9,544.05	9,344.80	-345.31	455,827.70	728,991.89	32.25101590	-103.59262108
18,879.00	90.60	358.20	9,544.71	9,438.75	-348.26	455,921.65	728,988.93	32.25127419	-103.59262854

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well Eata Fajita State Well No. 6H
Project:	Lea County, New Mexico	TVD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Site:	Eata Fajita State	MD Reference:	RKB=3592.6+26 @ 3618.60usft (Independence 205)
Well:	Eata Fajita State Well No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	Dbase Nov0914

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
18,974.00	88.60	357.90	9,545.37	9,533.69	-351.50	456,016.59	728,985.70	32.25153521	-103.59263687
19,068.00	89.70	357.20	9,546.77	9,627.59	-355.51	456,110.49	728,981.68	32.25179340	-103.59264777
19,162.00	91.70	356.80	9,545.62	9,721.45	-360.43	456,204.35	728,976.76	32.25205149	-103.59266159
19,256.00	90.70	357.00	9,543.65	9,815.29	-365.51	456,298.19	728,971.68	32.25230953	-103.59267593
19,372.00	90.70	357.00	9,542.23	9,931.12	-371.58	456,414.02	728,965.61	32.25262804	-103.59269298
Survey projected to 19372.00 MD									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
50.00	50.00	0.02	0.07	Gyro
5,097.00	5,096.10	-1.83	25.97	MWD surveys
9,505.00	9,464.76	140.28	-11.22	330 Hard line intercept @ 9505 MD
19,372.00	9,542.23	9,931.12	-371.58	Survey projected to 19372.00 MD



COG Operating LLC

Well: Eata Fajita State Well No. 6H
 Site: Eata Fajita State
 Project: Lea County, New Mexico
 Design: rev5
 Rig: Independence 205

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	9695.00	73.90	343.30	9557.88	299.60	-47.23	0.00	0.00	301.07	Survey @ 9695.00 MD
2	9743.00	81.20	339.80	9568.22	344.02	-62.07	16.79	-25.49	345.99	Proj. Begin 6°/100' build
3	9892.67	90.18	339.80	9579.46	483.94	-113.55	6.00	0.00	487.63	Begin 90.18 lateral section
4	9897.67	90.18	339.80	9579.44	488.63	-115.28	0.00	0.00	492.38	Begin 2°/100' turn
5	10886.95	90.18	359.59	9576.34	1457.11	-291.40	2.00	89.98	1466.47	Begin 90.18 lateral section
6	19462.40	90.18	359.59	9550.00	10032.30	-353.40	0.00	0.00	0038.52	PBHL/TD



Azimuths to Grid North
 True North: -0.40°
 Magnetic North: 6.76°
 Magnetic Field
 Strength: 48259.2snT
 Dip Angle: 60.10°
 Date: 12/30/2014
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
50.00	50.00	0.18	71.70	0.02	0.07	0.02	0.08	Gyro
5096.09	5097.00	2.13	128.79	-1.83	25.97	-2.74	68.63	MWD surveys
9464.76	9505.00	46.18	350.41	140.28	-11.22	140.59	264.59	330 Hard line intercept @ 9505 MD
9542.23	19372.00	90.70	357.00	9931.12	-371.58	9938.05	10100.70	Survey projected to 19372.00 MD

Surface Location: RKB=3592.6+26 @ 3618.60usft (Independence 205)
 US State Plane 1927 (Exact solution)
 New Mexico East 3001

Northing 446482.90 Easting 729337.20 Latitude 32.22532275 Longitude -103.59171291

Total Correction (M => G) To convert a Magnetic Direction to a Grid Direction, Add 6.76°

