

WELL LOGS

K Z

API number:	30-025-38737		
OGRID:		Operator:	COG OPERATING LLC
		Property:	GC FEDERAL # 7

surface	ULSTR:	K	19	T	17S	R	32E
			1787	FSL		1767	FWL

BH Loc	ULSTR:	K	19	T	17S	R	32E
			2284	FSL		1659	FWL

Ground Level:	3928	DF:	3939	KB:	3940	
Datum:	KB			TD:	7046	

Land: **FEDERAL**

Completion Date: (1) 7/29/2008

Date Logs Received: 9/19/2008 ***LATE***

Date Logs Due in: (2) 8/18/2008

Confidential:	NO			Date out:		
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Confidential period: 90 Days for State & Fee, 1 Year for federal

Date Due In: (1) is equal to Completion Date (1) + 20 days

Logs	Depth interval	
CNL/DSL	0 6984	Compensated Neutron Log Digital Spectralog

K Z

OCD TOPS

Rustler	628	Strawn		
Tansill		Atoka		
Yates	1964	Morrow		
7 rvrs	2332			
	2690	Austin		
	2763	Chester		
Queen	2937	Miss Lime		
Penrose				
Grayburg	3308			
San Andres	3645			
Glorieta	5242			
Paddock	5287			
Blaineby				
Tubb				
Drinkard				
Abo				
Wolfcamp				

Results of Directional Survey

API number:	30-025-38737		
OGRID:		Operator:	COG OPERATING LLC
		Property:	GC FEDERAL # 7

surface	ULSTR:	K	19	T	17S	R	32E
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BH Loc	ULSTR:	K	19	T	17S	R	32E
			2284	FSL		1659	FWL

	MD	N/S	E/W	VD
	5854	396.47	-90.20	5828.34
TOP PERFS/OH	5880	398.76	-90.77	5854.24
	5916	401.92	-91.57	5890.09
	6581	457.75	-103.81	6552.62
BOT PERFS/OH	6630	461.99	-104.28	6601.43
	6676	465.98	-104.73	6647.25

NEXT TO LAST	6866	482.48	-106.89	6836.52
LAST READING	6975	491.18	-107.49	6945.17
TD	7046	496.85	-107.88	7015.94

Surface Location	1787	FS	1767	FW
Projected BHL	2284	FS	1659	FW
Location of				
Top Perfs/OH	2186	FS	1676	FW
Bottom Perfs/OH	2249	FS	1663	FW

SUMMARY of Subsurface Locations

Surface Location	K-19-17S-32E	1787	FS	1767	FW	Vert. Depth
Top Perfs/OH	K-19-17S-32E	2186	FS	1676	FW	5854.24
Bottom Perfs/OH	K-19-17S-32E	2249	FS	1663	FW	6601.43
Projected TD	K-19-17S-32E	2284	FS	1659	FW	7015.94

RELATIVE

34-1000

SEP 19 2008

HOBBS OIL

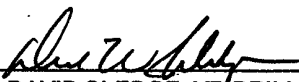
OPERATOR COG Operating, LLC
WELL/LEASE GC Fed 7
COUNTY Lea

SUR: K-19-17s-32e, 1787/S & 1767/W
BHL: K-19-17s-32e, 2284/S & 1659/W
API # 30-025-38737

STATE OF NEW MEXICO
DEVIATION REPORT

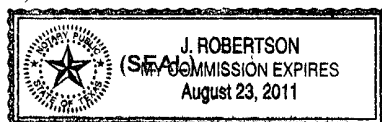
240	0.75
508	0.50
611	0.50
938	1.00
1222	0.75
1539	0.50
1825	1.50
2112	1.00
2272	0.70
2303	1.10
2367	3.30
2399	4.30
2430	5.40
2463	6.50
2494	7.50
2558	8.40
2684	7.60
2748	6.80
2811	6.20
2875	6.40
2938	7.10
3001	7.60
3065	7.40
3128	6.80
3192	6.90
3319	5.20
3382	5.80
3445	6.60
3509	7.40
3572	7.50
3635	7.60
3699	7.60
3762	7.60
3825	7.50
3889	6.70
3952	6.60
4016	6.30
4079	6.40
4396	7.40
4460	7.50
4523	7.30
4586	7.80
4650	7.40
4777	7.50
4840	7.30
4903	7.30
4998	7.10
5094	7.00
5284	7.10
5854	5.20
6676	5.00
6975	4.50

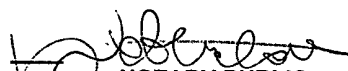
SIGNED BY:


DAVID SLEDGE, VP-DRILLING

STATE OF TEXAS
COUNTY OF MIDLAND

ON THIS 25th DAY OF July, 2008, BEFORE ME, J ROBERTSON, A NOTARY
PUBLIC, PERSONALLY APPEARED DAVID SLEDGE, WHO ACKNOWLEDGED AND EXECUTED
THIS DOCUMENT. WITNESS MY HAND AND OFFICIAL SEAL.




NOTARY PUBLIC

SEP 19 2008
HOBBS (UT)

SUR: K-19-17s-32e, 1787/S & 1767/W
BHL: K-19-17s-32e, 2284/S & 1659/W
API # 30-025-38737



Survey Report

Report Date: July 3, 2008	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: COG Operating, LLC	Vertical Section Azimuth: 347.050°
Field: Lea County, NM	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: GC Federal #7 / GC Federal #7	TVD Reference Datum: RKB
Well: GC Federal #7	TVD Reference Elevation: 0.0 ft relative to
Borehole: GC Federal #7	Sea Bed / Ground Level Elevation: 0.000 ft relative to
UWI/API#:	Magnetic Declination: 8.087°
Survey Name / Date: GC Federal #7_surveys / June 26, 2008	Total Field Strength: 49296 900 nT
Tort / AHD / DDI / ERD ratio: 48.146° / 549.66 ft / 4.425 / 0.078	Magnetic Dip: 60.783°
Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone, US Feet	Declination Date: June 26, 2008
Location Lat/Long: N 32 49 3 734, W 103 48 29 616	Magnetic Declination Model: IGRF 2005
Location Grid N/E Y/X: N 661592.400 ftUS, E 661320.100 ftUS	North Reference: Grd North
Grid Convergence Angle: +0.28459669°	Total Corr Mag North -> Grid North: +7.802°
Grid Scale Factor: 0.99993889	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Mag / Grav Tool Face (deg)
Tie-In	2213.00	0.82	81.36	2212.78	-10.26	-5.42	22.25	22.90	103.68	0.85	94.40M
	2240.00	0.70	94.40	2239.78	-10.33	-5.40	22.60	23.24	103.44	0.78	77.60M
	2272.00	0.70	77.60	2271.78	-10.39	-5.37	22.99	23.61	103.16	0.64	40.20M
	2303.00	1.10	40.20	2302.77	-10.21	-5.11	23.37	23.92	102.32	2.23	7.00M
	2335.00	1.90	7.00	2334.76	-9.53	-4.34	23.63	24.02	100.42	3.59	1.30M
	2367.00	3.30	1.30	2366.73	-8.14	-2.90	23.71	23.89	96.96	4.44	359.70M
	2399.00	4.30	359.70	2398.66	-6.07	-0.78	23.73	23.74	91.87	3.14	357.70M
	2430.00	5.40	357.70	2429.55	-3.51	1.84	23.66	23.74	85.54	3.59	17.28L
	2463.00	6.50	354.70	2462.37	-0.13	5.26	23.43	24.01	77.36	3.46	20.91L
	2494.00	7.50	351.80	2493.14	3.63	9.00	22.98	24.68	68.60	3.42	21.44L
	2557.00	8.40	349.40	2555.53	12.32	17.60	21.55	27.82	50.76	1.52	118.66L
	2621.00	8.00	343.60	2618.88	21.44	26.47	19.43	32.83	36.28	1.43	140.93L
	2684.00	7.60	341.10	2681.30	29.96	34.61	16.84	38.49	25.95	0.83	170.77L
	2748.00	6.80	340.00	2744.79	37.93	42.18	14.17	44.49	18.58	1.27	138.11R
	2811.00	6.20	345.20	2807.39	45.03	48.97	12.03	50.43	13.80	1.33	HS
	2875.00	6.40	345.20	2871.00	52.05	55.76	10.24	56.69	10.40	0.31	2.02L
	2938.00	7.10	345.00	2933.56	59.45	62.92	8.33	63.47	7.54	1.11	4.54R
	3001.00	7.60	345.30	2996.04	67.50	70.71	6.27	70.98	5.06	0.80	162.18R
	3065.00	7.40	345.80	3059.50	75.86	78.80	4.18	78.91	3.04	0.33	141.20L
	3128.00	6.80	341.60	3122.01	83.62	86.27	2.01	86.29	1.33	1.26	76.91L
	3192.00	6.90	338.40	3185.56	91.20	93.44	-0.60	93.44	359.63	0.62	124.52L
	3255.00	6.60	334.40	3248.12	98.47	100.22	-3.56	100.29	357.97	0.88	161.36R
	3319.00	5.20	339.70	3311.78	104.94	106.26	-6.16	106.44	356.68	2.35	46.80R
	3382.00	5.80	345.70	3374.49	110.95	112.02	-7.93	112.30	355.95	1.32	29.06R
	3445.00	6.60	349.50	3437.12	117.75	118.67	-9.38	119.04	355.48	1.43	32.66L
	3509.00	7.40	345.60	3500.64	125.54	126.27	-11.07	126.76	354.99	1.45	49.85L
	3572.00	7.50	344.70	3563.11	133.71	134.17	-13.17	134.82	354.39	0.24	21.66L
	3635.00	7.60	344.40	3625.57	141.98	142.15	-15.37	142.98	353.83	0.17	90.00R
	3699.00	7.60	346.50	3689.00	150.44	150.34	-17.50	151.36	353.36	0.43	90.00L
	3762.00	7.60	346.30	3751.45	158.77	158.44	-19.46	159.63	353.00	0.04	122.98L
	3825.00	7.50	345.10	3813.91	167.04	166.46	-21.50	167.84	352.64	0.30	135.84L
	3889.00	6.70	338.00	3877.42	174.91	173.96	-23.98	175.60	352.15	1.85	113.39L
	3952.00	6.60	335.90	3939.99	182.09	180.67	-26.83	182.65	351.55	0.42	113.30R
	4016.00	6.30	343.40	4003.59	189.20	187.39	-29.34	189.68	351.10	1.40	12.57R
	4079.00	6.40	343.60	4066.20	196.16	194.07	-31.31	196.58	350.83	0.16	13.40R
	4143.00	7.50	345.60	4129.73	203.89	201.54	-33.36	204.28	350.60	1.76	7.54L
	4206.00	7.60	345.50	4192.18	212.17	209.56	-35.43	212.53	350.40	0.16	---
	4270.00	7.60	345.50	4255.62	220.63	217.75	-37.55	220.97	350.22	0.00	HS

SEP 19 2008

HOBBSVILLE

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Mag / Grav Tool Face (deg)
	4333.00	7.80	345.50	4318.05	229.07	225.92	-39.66	229.38	350.04	0.32	155.85L
	4396.00	7.40	344.10	4380.50	237.39	233.97	-41.84	237.68	349.86	0.70	80.42L
	4460.00	7.50	340.30	4443.96	245.66	241.86	-44.38	245.90	349.60	0.79	169.21R
	4523.00	7.30	340.60	4506.44	253.72	249.51	-47.09	253.91	349.31	0.32	31.13R
	4586.00	7.80	342.80	4568.89	261.96	257.37	-49.69	262.12	349.07	0.92	170.86L
	4650.00	7.40	342.30	4632.33	270.39	265.44	-52.22	270.53	348.87	0.63	18.32R
	4713.00	7.60	342.80	4694.79	278.59	273.29	-54.69	278.71	348.68	0.33	152.47R
	4777.00	7.50	343.20	4758.23	286.98	281.33	-57.15	287.07	348.52	0.18	169.21L
	4840.00	7.30	342.90	4820.71	295.07	289.09	-59.51	295.15	348.37	0.32	90.00L
	4903.00	7.30	340.20	4883.20	303.04	296.68	-62.05	303.10	348.19	0.54	122.83R
	4998.00	7.10	342.80	4977.45	314.89	307.97	-65.83	314.93	347.93	0.40	159.94L
	5094.00	7.00	342.50	5072.72	326.64	319.22	-69.34	326.66	347.74	0.11	43.58L
	5188.00	7.20	341.00	5166.00	338.20	330.25	-72.98	338.22	347.54	0.29	107.40L
	5284.00	7.10	338.20	5261.26	350.05	341.44	-77.14	350.05	347.27	0.38	134.92R
	5347.00	6.80	340.80	5323.79	357.60	348.58	-79.81	357.60	347.10	0.69	169.81L
	5411.00	6.20	339.80	5387.38	364.80	355.40	-82.25	364.80	346.97	0.95	130.38R
	5474.00	5.30	353.20	5450.07	371.07	361.49	-83.77	371.07	346.95	2.56	178.96R
	5537.00	3.00	354.00	5512.90	375.60	366.02	-84.29	375.60	347.03	3.65	6.14L
	5600.00	5.50	351.20	5575.72	380.24	370.64	-84.92	380.24	347.09	3.98	9.51L
	5663.00	6.00	350.40	5638.40	386.54	376.87	-85.94	386.54	347.15	0.80	51.33L
	5727.00	6.30	347.10	5702.03	393.39	383.59	-87.28	393.39	347.18	0.72	125.89R
	5790.00	6.20	348.40	5764.66	400.25	390.29	-88.73	400.25	347.19	0.28	160.76L
	5854.00	5.20	344.50	5828.34	406.60	396.47	-90.20	406.60	347.18	1.67	90.00R
	5916.00	5.20	347.30	5890.09	412.22	401.92	-91.57	412.22	347.17	0.41	151.80R
	5979.00	4.90	349.20	5952.84	417.76	407.35	-92.70	417.76	347.18	0.55	138.50L
	6043.00	4.60	345.80	6016.62	423.06	412.52	-93.85	423.06	347.18	0.64	158.61R
	6106.00	4.50	346.30	6079.42	428.06	417.37	-95.05	428.06	347.17	0.17	116.86L
	6170.00	4.40	343.60	6143.23	433.02	422.17	-96.34	433.02	347.15	0.36	8.19R
	6233.00	5.30	345.00	6206.01	438.34	427.30	-97.77	438.34	347.11	1.44	90.00R
	6297.00	5.30	349.90	6269.73	444.25	433.06	-99.06	444.25	347.12	0.71	136.19L
	6391.00	5.00	346.50	6363.35	452.68	441.32	-100.77	452.68	347.14	0.46	66.81R
	6486.00	5.10	349.00	6457.98	461.04	449.49	-102.55	461.04	347.15	0.25	106.16R
	6581.00	5.00	353.60	6552.62	469.37	457.75	-103.81	469.37	347.22	0.44	90.00R
	6676.00	5.00	353.70	6647.25	477.60	465.98	-104.73	477.60	347.33	0.01	41.13L
	6771.00	5.20	351.80	6741.88	486.00	474.35	-105.80	486.01	347.43	0.28	168.90R
	6866.00	4.70	353.00	6836.52	494.16	482.48	-106.89	494.17	347.51	0.54	114.98R
	6975.00	4.50	359.20	6945.17	502.78	491.18	-107.49	502.81	347.66	0.49	---
Projected TD	7046.00	4.50	359.20	7015.95	508.23	496.75	-107.57	508.27	347.78	0.00	---