



A GYRO TECHNOLOGIES INC. COMPANY

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

15-40208

September 3, 2013

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

Attn: Kanicia Castillo

Re: **Beech 25 Federal No 009H**

Please find enclosed a copy of the survey from 0' to 2,790' ran on the above referenced well.

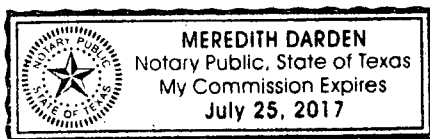
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

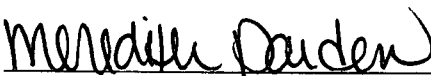
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

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




Meredith Darden
Notary Public, State of Texas

Company: COG OPERATING - CONCHO
Lease/Well: BEECH 25 FEDERAL/No 009H



Rig Name: SILVER OAK 3
State/County: NEW MEXICO/EDDY
Latitude: 32.80, Longitude: -104.24
GRID North is 0.05 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB 17 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro survey-de_01.ut

Minimum Curvature Method

Report Date/Time: 9/3/2013 / 10:18

Vaughn Energy Services

Gardendale, Texas

432-563-5444

Surveyor: Nathan Cranor

Beech 25 Federal No 009H / API 30-015-40208

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	1.03	286.84	99.99	0.26	-0.86	0.26	0.90	286.84	1.03
200.00	0.83	288.01	199.98	0.74	-2.40	0.74	2.51	287.18	0.20
300.00	0.96	279.96	299.97	1.11	-3.91	1.11	4.07	285.84	0.18
400.00	0.99	292.47	399.96	1.59	-5.53	1.59	5.76	285.98	0.21
500.00	0.61	277.86	499.95	1.99	-6.86	1.99	7.14	286.16	0.43
600.00	0.70	278.39	599.94	2.15	-7.99	2.15	8.28	285.06	0.09
700.00	0.85	263.05	699.93	2.15	-9.33	2.15	9.58	282.97	0.26
800.00	0.71	264.38	799.92	2.00	-10.68	2.00	10.87	280.60	0.15
900.00	0.49	258.04	899.91	1.85	-11.71	1.85	11.86	278.98	0.22
1000.00	0.55	267.82	999.91	1.74	-12.62	1.74	12.74	277.87	0.11
1100.00	0.87	242.22	1099.90	1.37	-13.77	1.37	13.84	275.68	0.44
1200.00	0.67	256.01	1199.89	0.88	-15.01	0.88	15.04	273.34	0.27
1300.00	0.82	232.07	1299.89	0.30	-16.14	0.30	16.14	271.05	0.34
1400.00	0.68	249.99	1399.88	-0.35	-17.26	-0.35	17.26	268.85	0.27
1500.00	0.82	228.01	1499.87	-1.02	-18.34	-1.02	18.37	266.80	0.32
1600.00	0.27	246.01	1599.86	-1.60	-19.09	-1.60	19.15	265.22	0.57
1700.00	0.58	218.86	1699.86	-2.08	-19.62	-2.08	19.73	263.93	0.36
1800.00	0.72	229.45	1799.86	-2.88	-20.41	-2.88	20.61	261.96	0.18

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	0.40	213.91	1899.85	-3.58	-21.08	-3.58	21.38	260.36	0.35
2000.00	0.40	246.75	1999.85	-4.01	-21.59	-4.01	21.96	259.48	0.23
2100.00	0.58	227.18	2099.84	-4.49	-22.28	-4.49	22.73	258.61	0.25
2200.00	0.45	232.29	2199.84	-5.07	-22.96	-5.07	23.52	257.54	0.14
2300.00	0.49	209.43	2299.84	-5.69	-23.49	-5.69	24.16	256.39	0.19
2400.00	0.17	224.08	2399.84	-6.17	-23.80	-6.17	24.59	255.47	0.33
2500.00	0.35	200.64	2499.83	-6.56	-24.01	-6.56	24.89	254.72	0.20
2600.00	0.26	170.88	2599.83	-7.07	-24.09	-7.07	25.10	253.64	0.18
2700.00	0.46	160.09	2699.83	-7.67	-23.91	-7.67	25.11	252.21	0.21
2790.00	0.39	180.75	2789.83	-8.31	-23.79	-8.31	25.20	250.74	0.19



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

RECEIVED
SEP 23 2013
ARTESIA WEST

September 9, 2013

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

RE: Beech 25 Federal #9H
990' FSL & 180' FWL
Sec. 25, T17S, R27E
Eddy County, New Mexico

Dear Sir,

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

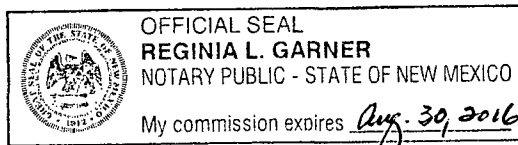
Very truly yours,

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 9th day of September, 2013.

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

Beech 25 Federal #9H

#	Date	Depth	Deviation	Direction
	8/23/2013	174	1.40	0.00
	8/23/2013	300	1.30	0.00
	8/24/2013	428	1.00	0.00
	8/25/2013	699	0.80	0.00
	8/25/2013	945	0.70	0.00
	8/26/2013	1423	1.00	0.00
	8/27/2013	1922	0.70	0.00
	8/27/2013	2420	0.10	0.00
	8/28/2013	2874	0.50	164.90
	8/28/2013	2904	1.00	124.40
	8/28/2013	2936	2.50	106.50
	8/28/2013	2968	4.20	103.00
	8/28/2013	2999	6.10	100.70
	8/29/2013	3031	8.40	96.50
	8/29/2013	3063	10.90	93.50
	8/29/2013	3094	13.70	93.40
	8/29/2013	3125	16.60	93.50
	8/30/2013	3408	44.60	95.20
	8/30/2013	3439	48.90	95.90
	8/30/2013	3471	53.30	96.20
	8/30/2013	3502	57.80	94.70
	8/30/2013	3533	62.50	93.40
	8/30/2013	3564	67.20	92.10
	8/30/2013	3596	71.20	90.90
	8/30/2013	3627	74.90	90.80
	8/30/2013	3659	77.90	91.50
	8/30/2013	3690	81.40	92.60
	8/31/2013	3766	84.70	93.70
	8/31/2013	3842	89.90	93.40
	8/31/2013	3936	90.30	92.60
	8/31/2013	4030	90.70	91.50
	8/31/2013	4123	90.00	90.80
	8/31/2013	4217	91.00	90.70
	8/31/2013	4310	90.20	90.30
	8/31/2013	4404	90.10	90.90
	9/1/2013	4497	91.10	90.60
	9/1/2013	4591	90.10	90.20
	9/1/2013	4684	91.20	90.30
	9/1/2013	4777	90.60	89.00
	9/1/2013	4871	90.10	90.20
	9/1/2013	4965	90.20	91.10
	9/1/2013	5059	91.50	90.60
	9/1/2013	5153	91.70	89.70

#	Date	Depth	Deviation	Direction
	9/2/2013	5247	91.40	90.80
	9/2/2013	5341	91.20	90.20
	9/2/2013	5434	0.00	0.00
	9/2/2013	5528	91.60	90.30
	9/2/2013	5622	90.70	91.20
	9/2/2013	5716	91.10	90.80
	9/3/2013	5903	90.90	90.30
	9/3/2013	5996	90.20	90.60
	9/3/2013	6091	91.00	90.80
	9/3/2013	6184	89.80	89.80
	9/3/2013	6278	90.30	89.70
	9/3/2013	6371	89.70	89.30
	9/4/2013	6465	90.20	88.60
	9/4/2013	6559	90.90	88.40
	9/4/2013	6653	91.70	88.10

EOF