



August 19, 2015

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

Attn: Kanicia Castillo

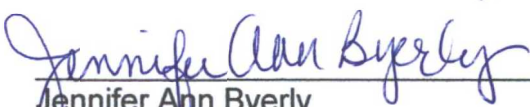
RE: **Banter State Com No 004H** ✓

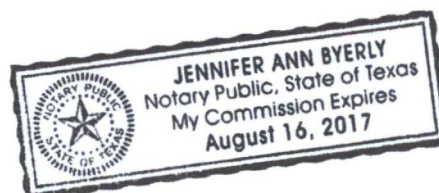
Please find enclosed a copy of the survey from 0' to 10,730' ran on the above referenced well.

Sincerely, 
Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 19 day of August,
A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas



FEB 15 2016



Company: Cog Operating LLC
Lease/Well: Banter State Com No/004H



Rig Name: Silver Oak 12
State/County: New Mexico /Lea
VS-Azi: 0.00 Degrees
Latitude: 32.31122, Longitude: -103.42969
Grid North = True North -0.48 degs (NAD 27)

Depth Reference : R.K.B = 18 FT

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: banter state com 4h survey .ut
Minimum Curvature Method
Report Date/Time: 8/19/2015 / 14:11

VES Survey International
Midland, Texas
432-563-5444

Surveyor: Javier Estrada
Banter State Com No 004H / API 30-025-42519

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	0.18	194.06	100.00	-0.15	-0.04	-0.15	0.16	194.06	0.18
200.00	0.13	51.09	200.00	-0.24	0.01	-0.24	0.24	177.20	0.30
300.00	0.06	30.95	300.00	-0.12	0.13	-0.12	0.17	132.37	0.07
400.00	0.27	59.41	400.00	0.05	0.36	0.05	0.36	82.10	0.22
500.00	0.74	64.86	499.99	0.45	1.15	0.45	1.23	68.83	0.47
600.00	0.85	82.68	599.99	0.82	2.47	0.82	2.60	71.75	0.27
700.00	1.42	99.54	699.97	0.70	4.43	0.70	4.49	80.97	0.66
800.00	3.09	105.51	799.88	-0.22	8.25	-0.22	8.26	91.55	1.69
900.00	1.74	108.11	899.79	-1.42	12.30	-1.42	12.38	96.57	1.35
1000.00	1.30	111.10	999.76	-2.30	14.80	-2.30	14.98	98.82	0.45
1100.00	1.10	195.06	1099.74	-3.63	15.61	-3.63	16.02	103.09	1.61
1200.00	1.70	208.20	1199.71	-5.86	14.66	-5.86	15.78	111.78	0.68
1300.00	1.37	213.78	1299.68	-8.16	13.29	-8.16	15.60	121.53	0.36
1400.00	1.25	198.03	1399.65	-10.19	12.29	-10.19	15.96	129.65	0.38
1500.00	2.15	211.85	1499.61	-12.81	10.97	-12.81	16.87	139.44	0.98
1600.00	3.18	210.14	1599.50	-16.80	8.59	-16.80	18.87	152.93	1.03
1700.00	3.24	207.15	1699.34	-21.71	5.91	-21.71	22.50	164.78	0.18
1800.00	1.80	206.10	1799.24	-25.63	3.93	-25.63	25.93	171.29	1.44

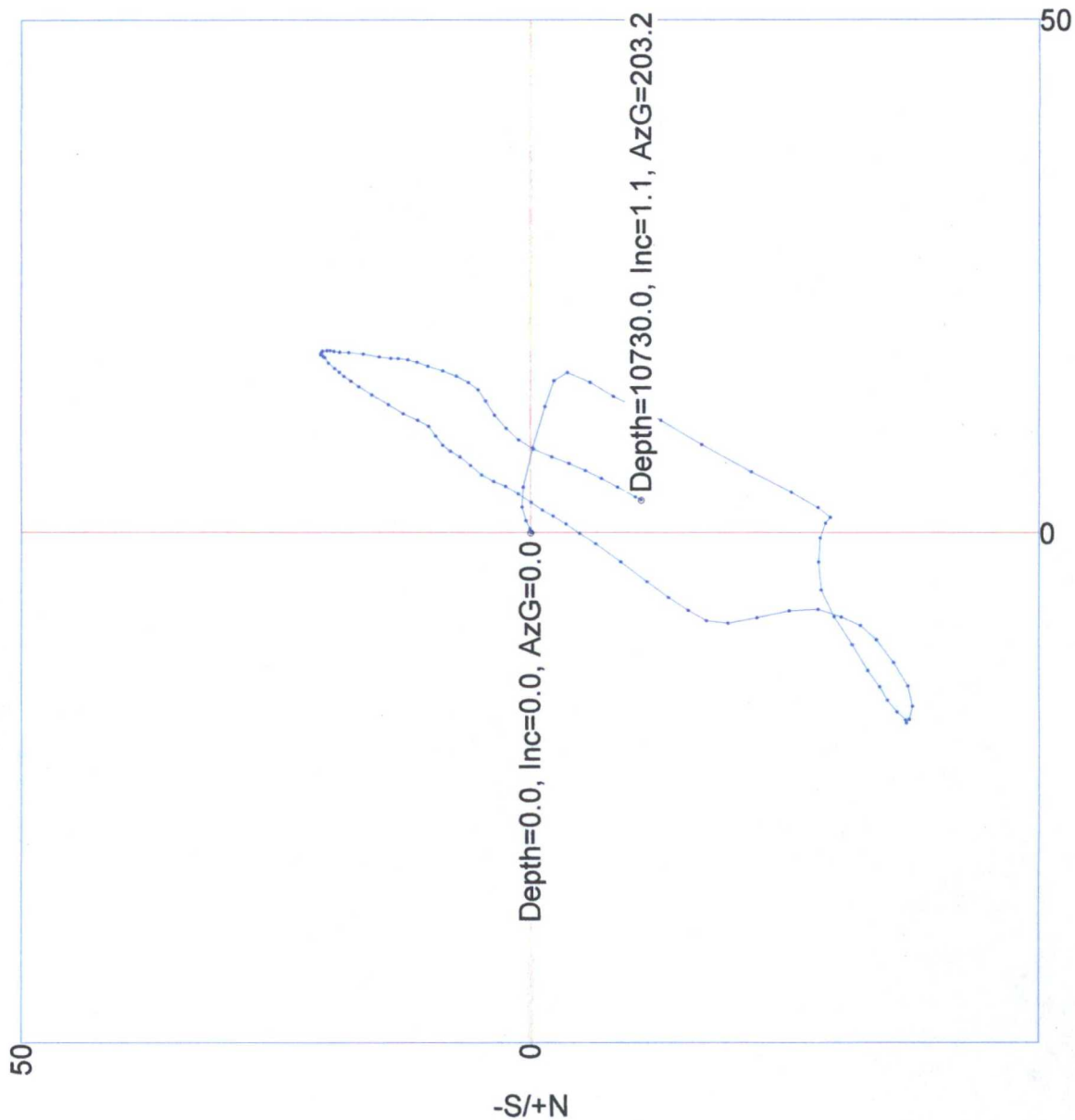
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.68	213.22	1899.20	-28.27	2.43	-28.27	28.37	175.08	0.25
2000.00	0.19	282.84	1999.18	-29.46	1.47	-29.46	29.49	177.14	1.62
2100.00	0.67	316.11	2099.18	-29.00	0.90	-29.00	29.01	178.22	0.52
2200.00	1.18	276.43	2199.16	-28.46	-0.52	-28.46	28.47	181.05	0.79
2300.00	1.51	272.17	2299.14	-28.30	-2.86	-28.30	28.44	185.77	0.34
2400.00	1.68	256.62	2399.10	-28.59	-5.61	-28.59	29.13	191.09	0.47
2500.00	1.71	232.47	2499.06	-29.84	-8.22	-29.84	30.95	195.40	0.71
2600.00	2.04	240.04	2599.00	-31.64	-10.95	-31.64	33.48	199.09	0.41
2700.00	1.35	236.32	2698.96	-33.18	-13.48	-33.18	35.82	202.10	0.69
2800.00	0.91	230.55	2798.94	-34.34	-15.07	-34.34	37.50	203.69	0.46
2900.00	0.84	248.85	2898.93	-35.11	-16.37	-35.11	38.74	204.99	0.29
3000.00	0.96	213.50	2998.92	-36.07	-17.51	-36.07	40.10	205.89	0.56
3100.00	0.39	243.94	3098.91	-36.92	-18.28	-36.92	41.19	206.34	0.65
3200.00	0.11	4.89	3198.91	-36.97	-18.58	-36.97	41.38	206.68	0.46
3300.00	0.60	137.16	3298.91	-37.26	-18.21	-37.26	41.48	206.05	0.68
3400.00	1.05	85.75	3398.90	-37.58	-16.94	-37.58	41.22	204.26	0.83
3500.00	1.28	70.29	3498.88	-37.13	-14.97	-37.13	40.04	201.95	0.39
3600.00	1.85	49.78	3598.84	-35.71	-12.68	-35.71	37.89	199.54	0.79
3700.00	1.36	55.93	3698.80	-34.00	-10.46	-34.00	35.58	197.10	0.52
3800.00	1.11	23.39	3798.78	-32.45	-9.09	-32.45	33.70	195.65	0.73
3900.00	1.25	24.96	3898.76	-30.57	-8.25	-30.57	31.67	195.10	0.14
4000.00	1.54	12.59	3998.73	-28.28	-7.50	-28.28	29.26	194.85	0.41
4100.00	1.82	344.32	4098.69	-25.44	-7.64	-25.44	26.56	196.71	0.87
4200.00	1.92	351.28	4198.63	-22.25	-8.32	-22.25	23.75	200.50	0.25
4300.00	1.42	346.49	4298.59	-19.39	-8.86	-19.39	21.32	204.57	0.52
4400.00	1.22	29.84	4398.56	-17.26	-8.62	-17.26	19.29	206.54	0.99
4500.00	1.14	29.94	4498.54	-15.47	-7.59	-15.47	17.24	206.14	0.08
4600.00	1.49	34.90	4598.52	-13.55	-6.36	-13.55	14.96	205.13	0.37
4700.00	1.53	37.02	4698.48	-11.42	-4.81	-11.42	12.39	202.84	0.07
4800.00	2.17	37.36	4798.43	-8.85	-2.86	-8.85	9.30	197.90	0.64
4900.00	1.29	33.41	4898.38	-6.41	-1.09	-6.41	6.50	189.66	0.88
5000.00	0.86	30.43	4998.37	-4.82	-0.09	-4.82	4.82	181.09	0.44
5100.00	1.00	38.05	5098.35	-3.49	0.82	-3.49	3.59	166.71	0.19
5200.00	0.71	21.69	5198.34	-2.23	1.59	-2.23	2.74	144.46	0.37
5300.00	0.69	38.03	5298.33	-1.18	2.19	-1.18	2.49	118.33	0.20
5400.00	0.83	30.77	5398.33	-0.09	2.93	-0.09	2.93	91.67	0.17
5500.00	0.92	34.85	5498.31	1.20	3.76	1.20	3.95	72.31	0.11
5600.00	0.73	24.06	5598.30	2.44	4.48	2.44	5.10	61.42	0.25
5700.00	0.73	21.55	5698.30	3.61	4.97	3.61	6.15	54.00	0.03

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	0.81	34.17	5798.29	4.79	5.60	4.79	7.37	49.48	0.18
5900.00	0.83	45.47	5898.28	5.88	6.52	5.88	8.78	47.93	0.16
6000.00	0.72	32.30	5998.27	6.92	7.37	6.92	10.11	46.79	0.21
6100.00	0.53	28.71	6098.26	7.86	7.93	7.86	11.17	45.25	0.20
6200.00	0.58	45.26	6198.26	8.62	8.51	8.62	12.11	44.62	0.17
6300.00	0.75	58.54	6298.25	9.32	9.43	9.32	13.25	45.33	0.23
6400.00	0.59	47.94	6398.24	10.01	10.37	10.01	14.41	46.01	0.20
6500.00	0.89	15.70	6498.23	11.10	10.96	11.10	15.60	44.64	0.50
6600.00	0.92	33.00	6598.22	12.51	11.61	12.51	17.07	42.84	0.27
6700.00	1.04	29.24	6698.21	13.97	12.48	13.97	18.74	41.77	0.14
6800.00	1.10	31.13	6798.19	15.59	13.42	15.59	20.57	40.73	0.08
6900.00	0.62	33.31	6898.18	16.87	14.22	16.87	22.06	40.13	0.48
7000.00	0.47	36.63	6998.17	17.65	14.76	17.65	23.01	39.91	0.16
7100.00	0.47	30.62	7098.17	18.33	15.21	18.33	23.82	39.69	0.05
7200.00	0.27	63.63	7198.17	18.78	15.63	18.78	24.43	39.76	0.28
7300.00	0.43	22.72	7298.17	19.23	15.98	19.23	25.00	39.73	0.29
7400.00	0.54	53.49	7398.16	19.85	16.51	19.85	25.82	39.74	0.28
7500.00	0.20	65.63	7498.16	20.21	17.04	20.21	26.43	40.14	0.36
7600.00	0.15	355.86	7598.16	20.41	17.19	20.41	26.69	40.10	0.20
7700.00	0.19	61.53	7698.16	20.62	17.32	20.62	26.93	40.03	0.19
7800.00	0.16	187.16	7798.16	20.57	17.45	20.57	26.97	40.31	0.31
7900.00	0.17	41.59	7898.16	20.54	17.53	20.54	27.01	40.48	0.31
8000.00	0.26	168.29	7998.16	20.43	17.67	20.43	27.02	40.86	0.38
8100.00	0.23	178.66	8098.16	20.01	17.73	20.01	26.73	41.54	0.05
8200.00	0.13	180.84	8198.16	19.69	17.73	19.69	26.50	41.99	0.10
8300.00	0.33	192.48	8298.16	19.30	17.67	19.30	26.17	42.46	0.20
8400.00	0.31	185.53	8398.16	18.76	17.58	18.76	25.71	43.14	0.04
8500.00	0.73	180.53	8498.15	17.86	17.55	17.86	25.04	44.50	0.42
8600.00	0.91	190.68	8598.14	16.44	17.39	16.44	23.93	46.61	0.24
8700.00	0.91	188.82	8698.13	14.87	17.12	14.87	22.68	49.03	0.03
8800.00	0.39	182.27	8798.12	13.73	16.99	13.73	21.84	51.04	0.53
8900.00	0.43	182.27	8898.12	13.02	16.96	13.02	21.38	52.49	0.03
9000.00	0.67	189.30	8998.12	12.06	16.85	12.06	20.72	54.39	0.25
9100.00	0.42	205.33	9098.11	11.15	16.60	11.15	20.00	56.09	0.29
9200.00	0.87	197.08	9198.10	10.10	16.22	10.10	19.10	58.09	0.46
9300.00	0.89	198.12	9298.09	8.63	15.75	8.63	17.96	61.27	0.03
9400.00	0.77	204.81	9398.08	7.29	15.23	7.29	16.88	64.43	0.16
9500.00	0.75	208.60	9498.07	6.10	14.63	6.10	15.86	67.36	0.05
9600.00	0.63	225.26	9598.07	5.14	13.93	5.14	14.85	69.75	0.23

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
9700.00	0.90	244.50	9698.06	4.41	12.83	4.41	13.57	71.02	0.37
9800.00	0.98	231.64	9798.04	3.54	11.45	3.54	11.98	72.81	0.23
9900.00	1.01	223.76	9898.03	2.37	10.17	2.37	10.44	76.87	0.14
10000.00	0.87	221.61	9998.01	1.17	9.05	1.17	9.12	82.66	0.15
10100.00	1.14	204.59	10098.00	-0.31	8.13	-0.31	8.14	92.17	0.40
10200.00	1.08	200.72	10197.98	-2.09	7.38	-2.09	7.67	105.82	0.10
10300.00	1.02	201.27	10297.96	-3.80	6.73	-3.80	7.73	119.47	0.06
10400.00	0.98	205.45	10397.95	-5.41	6.04	-5.41	8.10	131.86	0.08
10500.00	1.03	207.74	10497.93	-6.98	5.25	-6.98	8.73	143.05	0.06
10600.00	1.00	207.20	10597.92	-8.55	4.43	-8.55	9.63	152.62	0.03
10700.00	1.27	209.92	10697.90	-10.29	3.48	-10.29	10.86	161.33	0.27
10730.00	1.14	203.20	10727.89	-10.85	3.19	-10.85	11.31	163.61	0.63



VES Survey International
Midland, Texas
432-563-5444
Surveyor: Javier Estrada
Banter State Com No 004H / API 30-025-42519



V.E.S. Survey Date: 8/16/2015



I JAVIER ESTRADA certify that I am employed by Vaughn Energy Services. That I did on the day(s) of 08/16/15 through 08/16/15 conduct or supervise the taking of a RATE GYRO survey from a depth of 0 feet to a depth of 10730 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of COG OPERATING for the Banter State Com No Well # 004H API # 30-025-42519 in Lea County / Parish NEW MEXCIO; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services

A handwritten signature in blue ink, appearing to read "Javier Estrada", written over a horizontal line.

JAVIER ESTRADA
Service Technician
Vaughn Energy Services



I JAVIER ESTRADA certify that I am employed by Vaughn Energy Services. That I did on the day(s) of 08/16/15 through 08/16/15 conduct or supervise the taking of a RATE GYRO survey from a depth of 0 feet to a depth of 10730 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of COG OPERATING for the Banter State Com No Well # 004H API # 30-025-42519 in Lea County / Parish NEW MEXCIO; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn Energy Services



JAVIER ESTRADA
Service Technician
Vaughn Energy Services