

Results of Directional Survey

API number:	30-025-41408		
OGRID:		Operator:	COG PRODUCTION, LLC
		Property:	WINDWARD FEDERAL # 2H

surface	ULSTR:	C	30	T 24S	R 32E
				190 FNL	1750 FWL

BH Loc	ULSTR:	N	31	T 24S	R 32E
20405	MD	10442.3	TVD	349 FSL	2373 FWL
				10211 FNL	

Top Perf/OH	ULSTR:	C	30	T 24S	R 32E
10815	MD	10590.1	TVD	643 FNL	1883 FWL

Bot Perf/OH	ULSTR:	N	31	T 24S	R 32E
20300	MD	10440.3	TVD	454 FSL	2370 FWL
				10106 FNL	

	MD	N/S	E/W	VD
	10783	-422.97	127.07	10581.86
TOP PERFS/OH	10815	-453.23	133.41	10590.09
	10815	-453.23	133.41	10590.09
	20287	-9903.06	619.42	10440.11
BOT PERFS/OH	20300	-9916.05	619.82	10440.34
	20349	-9965.02	621.31	10441.20

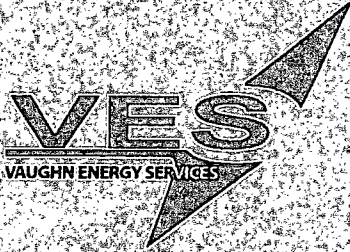
NEXT TO LAST	20349	-9965.02	621.31	10441.20
LAST READING	20401	-10016.99	622.76	10442.19
TD	20405	-10020.99	622.87	10442.27

Surface Location	190	FN	1750	FW
Projected BHL	10211	FN	2373	FW
Location of				
Top Perfs/OH	643	FN	1883	FW
Bottom Perfs/OH	10106	FN	2370	FW

SUMMARY of Subsurface Locations

Surface Location	C-30-24S-32E	190	FN	1750	FW	Vert. Depth
Top Perfs/OH	C-30-24S-32E	643	FN	1883	FW	10590.09
Bottom Perfs/OH	N-31-24S-32E	10106	FN	2370	FW	10440.34
Projected TD	N-31-24S-32E	10211	FN	2373	FW	10442.27

JUL 16 2018



A GYRO TECHNOLOGIES INC. COMPANY

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

HOBBS OCD

February 20, 2014

MAY 19 2014

RECEIVED

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

Attn: Kanicia Castillo

Re: **Windward Federal No 002H**

Please find enclosed a copy of the survey from 0' to 11,220' 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.

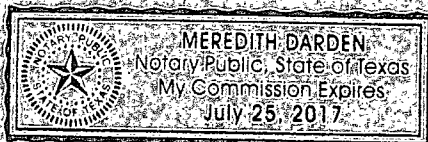
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 20th day of February
A.D., 2014, by Keith Havelka.


Meredith Darden
Notary Public, State of Texas





Company: COG Operating-Concho
Lease/Well: Windward Federal/No 002H
Location: 20 Miles From Malaga
Rig Name: Precision #77
State/County: Texas/Lea
Latitude: 32.17, Longitude: -103.72
GRID North is 0.33 Degrees East of True North
VS-Azi: 0.00 Degrees



HOBBS OCD

MAY 19 2014

RECEIVED

RKB : 30 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 2/20/2014 / 09:52

Vaughn Energy Services

Fort Worth, Tx

817- 741-3610

Surveyor: Jason Wilson

Windward Federal No 002H / API 30-025-41408

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	0.77	200.56	100.00	-0.63	-0.24	-0.63	0.67	200.56	0.77
200.00	0.84	220.20	199.99	-1.81	-0.94	-1.81	2.04	207.47	0.28
300.00	0.72	211.11	299.98	-2.91	-1.74	-2.91	3.39	210.87	0.17
400.00	0.72	213.14	399.97	-3.98	-2.41	-3.98	4.65	211.21	0.03
500.00	0.68	210.27	499.96	-5.01	-3.05	-5.01	5.87	211.32	0.06
600.00	0.55	210.54	599.96	-5.93	-3.59	-5.93	6.94	211.18	0.13
700.00	0.67	222.84	699.95	-6.77	-4.23	-6.77	7.99	211.98	0.18
800.00	1.09	234.75	799.94	-7.75	-5.40	-7.75	9.44	214.88	0.46
900.00	1.27	195.63	899.92	-9.36	-6.47	-9.36	11.38	214.67	0.81
1000.00	1.19	171.58	999.90	-11.46	-6.62	-11.46	13.23	210.03	0.52
1100.00	1.15	161.25	1099.88	-13.43	-6.15	-13.43	14.77	204.59	0.21
1200.00	1.42	132.20	1199.85	-15.21	-4.91	-15.21	15.99	197.88	0.70
1300.00	1.56	154.71	1299.82	-17.28	-3.41	-17.28	17.61	191.16	0.60
1400.00	1.11	123.11	1399.79	-19.04	-2.02	-19.04	19.15	186.04	0.85
1500.00	1.33	123.00	1499.77	-20.20	-0.23	-20.20	20.20	180.66	0.22
1600.00	1.26	113.69	1599.75	-21.27	1.74	-21.27	21.34	175.31	0.22
1700.00	1.04	104.74	1699.73	-21.94	3.63	-21.94	22.24	170.61	0.29
1800.00	0.81	97.62	1799.71	-22.27	5.21	-22.27	22.87	166.84	0.25

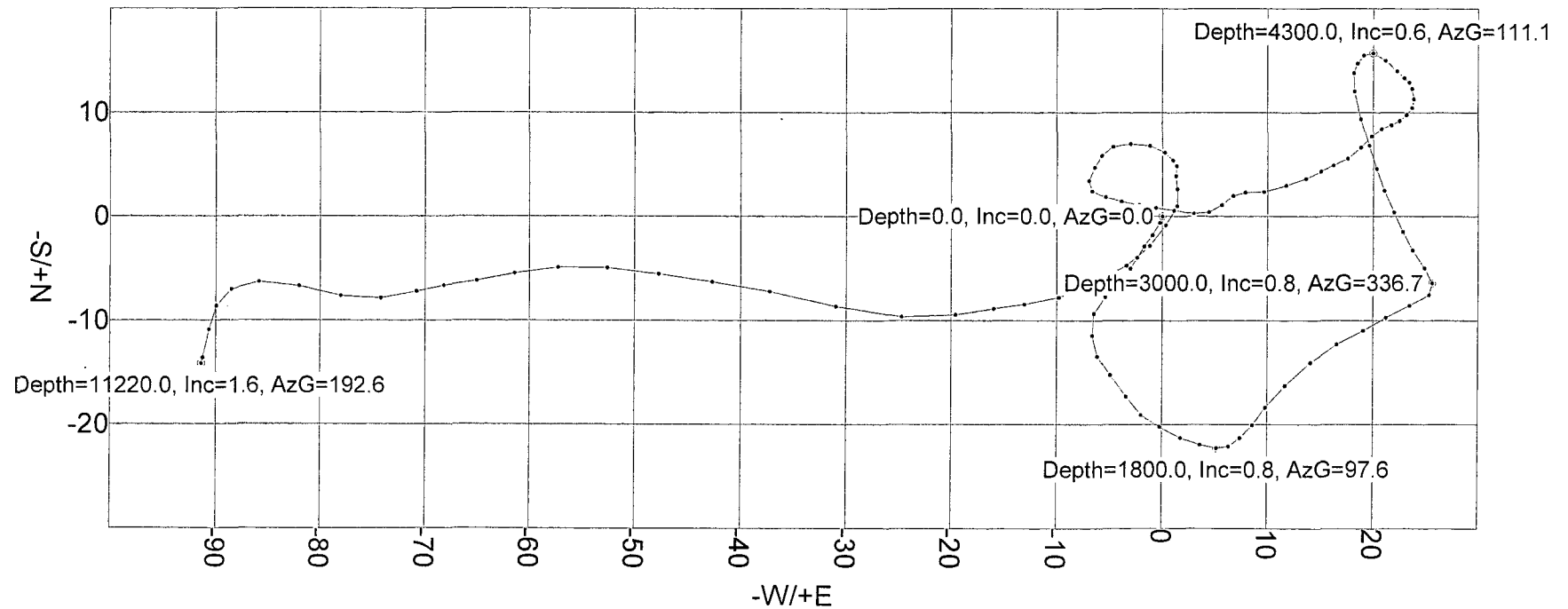
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.59	59.61	1899.71	-22.10	6.35	-22.10	23.00	163.96	0.50
2000.00	0.96	49.24	1999.70	-21.30	7.43	-21.30	22.56	160.78	0.39
2100.00	1.04	36.44	2099.68	-20.03	8.60	-20.03	21.79	156.76	0.24
2200.00	1.33	35.79	2199.66	-18.36	9.81	-18.36	20.81	151.87	0.29
2300.00	1.93	46.04	2299.62	-16.25	11.70	-16.25	20.02	144.25	0.66
2400.00	1.82	48.75	2399.57	-14.04	14.11	-14.04	19.90	134.86	0.14
2500.00	1.67	61.42	2499.52	-12.29	16.58	-12.29	20.64	126.55	0.41
2600.00	1.56	63.27	2599.48	-10.98	19.08	-10.98	22.01	119.93	0.13
2700.00	1.30	56.27	2699.45	-9.74	21.23	-9.74	23.36	114.65	0.31
2800.00	1.59	67.61	2799.42	-8.58	23.46	-8.58	24.98	110.10	0.41
2900.00	0.86	48.09	2899.39	-7.55	25.30	-7.55	26.40	106.63	0.83
3000.00	0.78	336.71	2999.39	-6.42	25.59	-6.42	26.38	104.09	0.96
3100.00	1.06	329.32	3099.37	-5.00	24.84	-5.00	25.34	101.38	0.30
3200.00	1.27	325.24	3199.35	-3.29	23.74	-3.29	23.97	97.90	0.22
3300.00	1.05	340.67	3299.33	-1.53	22.81	-1.53	22.86	93.83	0.38
3400.00	1.35	332.97	3399.31	0.38	21.97	0.38	21.98	89.00	0.34
3500.00	1.30	339.72	3499.28	2.49	21.05	2.49	21.19	83.24	0.16
3600.00	1.26	342.88	3599.26	4.60	20.33	4.60	20.85	77.24	0.08
3700.00	1.43	341.39	3699.23	6.83	19.61	6.83	20.77	70.79	0.18
3800.00	1.63	345.55	3799.20	9.39	18.86	9.39	21.07	63.52	0.23
3900.00	1.47	348.97	3899.16	12.03	18.26	12.03	21.86	56.61	0.18
4000.00	0.59	16.56	3999.14	13.79	18.16	13.79	22.80	52.78	0.99
4100.00	0.53	28.18	4099.14	14.69	18.52	14.69	23.64	51.58	0.13
4200.00	0.64	45.09	4199.13	15.49	19.13	15.49	24.62	51.01	0.21
4300.00	0.58	111.06	4299.13	15.70	20.00	15.70	25.43	51.87	0.67
4400.00	1.01	128.60	4399.12	14.97	21.17	14.97	25.93	54.74	0.49
4500.00	0.65	137.11	4499.11	14.00	22.25	14.00	26.29	57.82	0.38
4600.00	0.46	130.18	4599.10	13.32	22.95	13.32	26.53	59.87	0.20
4700.00	0.25	134.10	4699.10	12.90	23.41	12.90	26.73	61.14	0.21
4800.00	0.57	165.25	4799.10	12.27	23.70	12.27	26.69	62.63	0.37
4900.00	0.57	177.98	4899.09	11.29	23.84	11.29	26.38	64.66	0.13
5000.00	0.44	207.11	4999.09	10.45	23.69	10.45	25.89	66.19	0.29
5100.00	0.58	226.89	5099.09	9.77	23.14	9.77	25.12	67.12	0.22
5200.00	0.39	232.73	5199.08	9.22	22.51	9.22	24.32	67.73	0.20
5300.00	0.63	247.41	5299.08	8.80	21.73	8.80	23.44	67.95	0.28
5400.00	0.51	246.31	5399.07	8.41	20.81	8.41	22.45	68.00	0.12
5500.00	0.88	229.01	5499.07	7.73	19.83	7.73	21.28	68.70	0.42
5600.00	0.83	216.60	5599.05	6.65	18.82	6.65	19.96	70.54	0.19
5700.00	1.04	238.72	5699.04	5.60	17.61	5.60	18.48	72.37	0.42

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	0.73	252.14	5799.03	4.93	16.23	4.93	16.97	73.10	0.37
5900.00	0.80	235.43	5899.02	4.34	15.06	4.34	15.67	73.91	0.23
6000.00	1.03	249.92	5999.01	3.64	13.64	3.64	14.12	75.06	0.33
6100.00	1.26	251.27	6098.99	2.98	11.76	2.98	12.13	75.78	0.23
6200.00	1.25	256.64	6198.96	2.38	9.66	2.38	9.95	76.18	0.12
6300.00	0.86	284.63	6298.95	2.32	7.88	2.32	8.21	73.62	0.63
6400.00	0.77	219.01	6398.94	1.99	6.73	1.99	7.02	73.57	0.89
6500.00	0.88	240.73	6498.93	1.09	5.64	1.09	5.75	79.06	0.33
6600.00	0.73	239.79	6598.92	0.40	4.43	0.40	4.45	84.87	0.15
6700.00	1.05	282.13	6698.91	0.27	2.99	0.27	3.00	84.82	0.71
6800.00	1.15	276.49	6798.89	0.58	1.09	0.58	1.24	62.18	0.15
6900.00	0.83	280.50	6898.88	0.82	-0.62	0.82	1.03	322.99	0.33
7000.00	1.05	279.73	6998.86	1.11	-2.23	1.11	2.49	296.40	0.22
7100.00	0.91	284.03	7098.85	1.46	-3.90	1.46	4.17	290.45	0.16
7200.00	0.87	286.08	7198.84	1.86	-5.40	1.86	5.71	288.98	0.05
7300.00	0.76	303.98	7298.83	2.43	-6.67	2.43	7.10	290.05	0.27
7400.00	0.80	20.61	7398.82	3.46	-6.97	3.46	7.78	296.37	0.96
7500.00	0.80	24.63	7498.81	4.74	-6.44	4.74	8.00	306.39	0.06
7600.00	0.72	37.54	7598.80	5.88	-5.76	5.88	8.23	315.57	0.19
7700.00	0.88	62.01	7698.79	6.74	-4.70	6.74	8.21	325.09	0.37
7800.00	1.09	95.11	7798.78	7.01	-3.08	7.01	7.66	336.30	0.60
7900.00	1.04	96.92	7898.76	6.82	-1.23	6.82	6.93	349.80	0.06
8000.00	0.86	135.33	7998.75	6.17	0.21	6.17	6.18	1.90	0.65
8100.00	0.38	131.41	8098.74	5.42	0.98	5.42	5.51	10.25	0.48
8200.00	0.41	164.37	8198.74	4.85	1.33	4.85	5.03	15.28	0.23
8300.00	0.70	195.44	8298.73	3.92	1.26	3.92	4.12	17.84	0.40
8400.00	0.84	157.46	8398.72	2.66	1.38	2.66	2.99	27.50	0.52
8500.00	1.15	195.83	8498.71	1.01	1.39	1.01	1.72	54.10	0.72
8600.00	1.40	220.94	8598.69	-0.89	0.31	-0.89	0.94	160.55	0.61
8700.00	1.47	214.00	8698.66	-2.87	-1.20	-2.87	3.11	202.73	0.19
8800.00	1.93	241.13	8798.61	-4.74	-3.39	-4.74	5.83	215.56	0.91
8900.00	2.06	241.42	8898.55	-6.42	-6.44	-6.42	9.09	225.12	0.13
9000.00	2.10	253.48	8998.49	-7.80	-9.78	-7.80	12.50	231.43	0.44
9100.00	1.75	264.26	9098.43	-8.47	-13.06	-8.47	15.56	237.03	0.50
9200.00	1.63	259.19	9198.39	-8.89	-15.97	-8.89	18.28	240.90	0.19
9300.00	2.54	262.04	9298.32	-9.46	-19.56	-9.46	21.73	244.19	0.92
9400.00	3.39	272.19	9398.19	-9.66	-24.72	-9.66	26.54	248.66	0.99
9500.00	3.92	285.07	9497.98	-8.66	-30.97	-8.66	32.16	254.39	0.97
9600.00	3.48	279.87	9597.77	-7.25	-37.26	-7.25	37.96	259.00	0.55

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	2.81	279.54	9697.62	-6.32	-42.67	-6.32	43.13	261.57	0.67
9800.00	3.02	277.61	9797.49	-5.57	-47.69	-5.57	48.02	263.34	0.23
9900.00	2.63	275.77	9897.37	-4.99	-52.58	-4.99	52.82	264.58	0.40
10000.00	2.78	265.59	9997.26	-4.94	-57.28	-4.94	57.49	265.07	0.50
10100.00	2.00	257.16	10097.18	-5.52	-61.39	-5.52	61.64	264.87	0.85
10200.00	2.22	260.63	10197.11	-6.22	-65.00	-6.22	65.30	264.54	0.25
10300.00	1.47	263.48	10297.06	-6.68	-68.18	-6.68	68.51	264.41	0.75
10400.00	1.60	252.87	10397.02	-7.24	-70.79	-7.24	71.16	264.16	0.31
10500.00	2.38	263.20	10496.96	-7.89	-74.19	-7.89	74.61	263.93	0.86
10600.00	2.08	284.88	10596.88	-7.67	-78.00	-7.67	78.38	264.38	0.89
10700.00	2.65	281.68	10696.80	-6.74	-82.02	-6.74	82.29	265.30	0.58
10800.00	1.82	267.96	10796.72	-6.33	-85.86	-6.33	86.10	265.79	0.98
10900.00	1.41	237.57	10896.69	-7.04	-88.49	-7.04	88.77	265.45	0.93
11000.00	1.19	203.44	10996.66	-8.66	-89.94	-8.66	90.36	264.50	0.79
11100.00	1.52	192.08	11096.63	-10.91	-90.63	-10.91	91.29	263.14	0.42
11200.00	1.65	192.81	11196.59	-13.60	-91.23	-13.60	92.23	261.52	0.13
11220.00	1.62	192.62	11216.59	-14.16	-91.35	-14.16	92.44	261.19	0.15



Vaughn Energy Services
Fort Worth, Tx
817- 741-3610
Surveyor: Jason Wilson
Windward Federal No 002H / API 30-025-41408



VES Survey Date: 02/08/2014



State of New Mexico
County of Lea

I, Michael K. Baber, certify that: I am employed by Terra Directional Services LLC; that I did on the day(s) of 1/22/14 through 3/5/14 conduct or supervise the taking of a MWD survey from a depth of 9743 feet to a depth 20401 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Terra Directional Services LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Concho Oil & Gas for the Windward Federal #2H Well API 30-025-41408 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Terra Directional Services LLC.

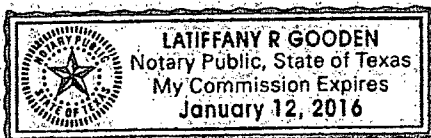
A handwritten signature of Michael K. Baber, consisting of a stylized "M" and "K" followed by "Baber".

Michael K. Baber
MWD Operations Coordinator

State of Texas

County of Brewster

Before me, a notary public, on this day personally appeared Michael K. Baber, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.



A handwritten signature of the notary public, Latiffany R. Gooden, written in dark ink.

Notary Public's Signature



Customer Name: Concho Oil & Gas
 Well Name: Windward Federal #2H
 API Number: 30-025-41408
 County / Parish: Lea County, NM

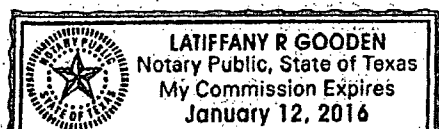
M.W.D. Operator: J. Bursleson
 Directional Driller: S. Brandt
 Total Magnetic Correction: 7.06
 Job #: NM-405

Vertical Section: 176.57

Tie In Survey(s) Provided By:

VES

	Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS
Tie - In										
0	9700.00	2.81	279.54	9697.62	-6.32	-6.32	-42.67	43.13	261.57	0.00
1	9743.00	2.90	279.70	9740.57	3.27	-5.96	-44.78	45.18	262.42	0.21
2	9795.00	2.20	269.00	9792.52	2.93	-5.76	-47.08	47.43	263.03	1.62
3	9870.00	4.10	137.30	9867.46	4.95	-7.76	-46.70	47.34	260.57	7.73
4	9901.00	4.50	138.70	9898.37	6.77	-9.48	-45.14	46.13	258.14	1.33
5	9932.00	4.40	140.30	9929.27	8.68	-11.31	-43.58	45.02	255.45	0.51
6	9964.00	4.20	140.50	9961.18	10.62	-13.16	-42.05	44.06	252.62	0.63
7	9996.00	4.10	144.20	9993.10	12.53	-14.99	-40.64	43.31	249.75	0.89
8	10028.00	4.80	142.80	10025.00	14.61	-16.99	-39.16	42.68	246.55	2.21
9	10059.00	7.10	141.00	10055.84	17.25	-19.51	-37.17	41.98	242.31	7.44
10	10090.00	9.90	137.70	10086.49	20.88	-22.97	-34.17	41.17	236.09	9.16
11	10122.00	12.70	137.00	10117.87	25.74	-27.58	-29.92	40.69	227.33	8.76
12	10154.00	15.90	137.70	10148.87	31.86	-33.39	-24.57	41.46	216.34	10.01
13	10185.00	19.30	139.10	10178.42	39.24	-40.41	-18.35	44.38	204.43	11.05
14	10217.00	22.50	140.70	10208.31	48.40	-49.15	-11.01	50.36	192.63	10.16
15	10248.00	25.50	143.50	10236.63	58.80	-59.10	-3.28	59.19	183.18	10.35
16	10279.00	28.00	146.50	10264.31	70.69	-70.54	4.71	70.69	176.18	9.16
17	10310.00	30.20	149.40	10291.39	83.93	-83.32	12.69	84.28	171.34	8.43
18	10342.00	33.10	151.60	10318.63	99.01	-97.94	20.95	100.15	167.93	9.75
19	10373.00	36.30	153.30	10344.12	115.12	-113.58	29.10	117.25	165.63	10.78
20	10405.00	39.00	155.80	10369.45	133.24	-131.24	37.48	136.48	164.06	9.69
21	10437.00	41.40	158.10	10393.89	152.70	-150.24	45.56	157.00	163.13	8.82
22	10468.00	43.50	159.80	10416.77	172.64	-169.77	53.07	177.87	162.64	7.72
23	10500.00	45.50	161.60	10439.59	194.21	-190.94	60.47	200.28	162.43	7.39
24	10531.00	48.40	161.70	10460.75	216.10	-212.43	67.60	222.93	162.35	9.36
25	10562.00	51.80	161.70	10480.63	239.08	-235.01	75.07	246.71	162.28	10.97
26	10594.00	55.00	162.10	10499.71	263.93	-259.43	83.05	272.40	162.25	10.05
27	10626.00	58.70	162.80	10517.20	289.91	-284.97	91.12	299.18	162.27	11.71
28	10657.00	61.70	163.70	10532.61	316.08	-310.72	98.87	326.08	162.35	10.00
29	10689.00	64.30	164.70	10547.14	343.93	-338.16	106.63	354.57	162.50	8.59
30	10720.00	66.50	166.10	10560.04	371.58	-365.43	113.73	382.72	162.71	8.20
31	10752.00	69.70	167.00	10571.97	400.82	-394.30	120.64	412.35	162.99	10.33
32	10783.00	73.10	167.70	10581.86	429.81	-422.97	127.07	441.64	163.28	11.17
33	10815.00	77.10	168.60	10590.09	460.40	-453.23	133.41	472.46	163.60	12.79
34	10846.00	79.90	169.80	10596.27	490.52	-483.06	139.10	502.69	163.94	9.80
35	10878.00	81.60	170.40	10601.41	521.90	-514.18	144.53	534.10	164.30	5.63
36	10909.00	83.40	170.40	10605.46	552.46	-544.48	149.66	564.67	164.63	5.81
37	10941.00	86.30	169.70	10608.33	584.12	-575.87	155.17	596.41	164.92	9.32
38	10979.00	87.10	169.80	10610.52	621.79	-613.20	161.92	634.22	165.21	2.12
39	11011.00	89.10	170.40	10611.58	653.56	-644.70	167.41	666.09	165.44	6.52
40	11042.00	91.40	171.20	10611.44	684.40	-675.30	172.37	696.95	165.68	7.86
41	11136.00	91.10	173.30	10609.39	778.11	-768.42	185.04	790.38	166.46	2.26
42	11230.00	90.10	174.60	10608.41	872.00	-861.88	194.95	883.66	167.25	1.74
43	11324.00	90.40	175.10	10608.00	965.96	-955.50	203.39	976.91	167.98	0.62
44	11419.00	90.70	176.90	10607.08	1060.95	-1050.26	210.01	1071.05	168.69	1.92
45	11514.00	90.80	176.00	10605.84	1155.94	-1145.07	215.89	1165.25	169.32	0.95



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46	11608.00	91.00	177.60	10604.36	1249.92	-1238.91	221.14	1258.49	169.88	1.72
47	11702.00	90.60	177.40	10603.05	1343.90	-1332.81	225.24	1351.71	170.41	0.48
48	11797.00	91.70	177.40	10601.15	1438.87	-1427.69	229.55	1446.03	170.87	1.16
49	11892.00	93.60	177.70	10596.75	1533.75	-1522.50	233.61	1540.32	171.28	2.02
50	11986.00	92.50	178.10	10591.75	1627.59	-1616.30	237.05	1633.59	171.66	1.24
51	12080.00	90.10	177.70	10589.62	1721.53	-1710.21	240.49	1727.03	172.00	2.59
52	12175.00	90.40	177.70	10589.21	1816.51	-1805.13	244.30	1821.59	172.29	0.32
53	12269.00	90.00	177.90	10588.88	1910.49	-1899.06	247.91	1915.17	172.56	0.48
54	12363.00	90.50	177.60	10588.47	2004.47	-1992.99	251.60	2008.81	172.80	0.62
55	12458.00	90.20	177.40	10587.89	2099.46	-2087.89	255.74	2103.50	173.02	0.38
56	12552.00	91.20	178.30	10586.74	2193.42	-2181.82	259.27	2197.17	173.22	1.43
57	12647.00	90.90	178.40	10585.00	2288.36	-2276.76	262.01	2291.79	173.44	0.33
58	12742.00	90.70	178.60	10583.67	2383.30	-2371.72	264.49	2386.42	173.64	0.30
59	12825.00	91.80	178.80	10581.86	2466.22	-2454.68	266.37	2469.09	173.81	1.35
60	12920.00	92.70	178.70	10578.13	2561.08	-2549.58	268.45	2563.68	173.99	0.95
61	13014.00	91.10	178.10	10575.01	2654.97	-2643.49	271.07	2657.35	174.15	1.82
62	13108.00	91.30	177.70	10573.05	2748.93	-2737.41	274.51	2751.14	174.27	0.48
63	13203.00	91.30	177.20	10570.89	2843.89	-2832.29	278.74	2845.97	174.38	0.53
64	13298.00	89.60	176.80	10570.14	2938.88	-2927.15	283.71	2940.87	174.46	1.84
65	13393.00	89.30	176.30	10571.06	3033.88	-3021.97	289.43	3035.80	174.53	0.61
66	13487.00	90.80	177.00	10570.97	3127.87	-3115.81	294.92	3129.74	174.59	1.76
67	13582.00	91.10	176.70	10569.40	3222.86	-3210.65	300.14	3224.65	174.66	0.45
68	13676.00	91.60	177.00	10567.18	3316.83	-3304.48	305.30	3318.56	174.72	0.62
69	13770.00	91.20	177.60	10564.89	3410.79	-3398.35	309.73	3412.44	174.79	0.77
70	13865.00	90.50	177.90	10563.48	3505.76	-3493.27	313.46	3507.30	174.87	0.80
71	13960.00	91.20	178.20	10562.07	3600.72	-3588.20	316.69	3602.15	174.96	0.80
72	14054.00	92.00	178.80	10559.44	3694.63	-3682.13	319.15	3695.94	175.05	1.06
73	14149.00	91.90	178.70	10556.21	3789.51	-3777.05	321.22	3790.69	175.14	0.15
74	14244.00	91.60	178.60	10553.31	3884.40	-3871.98	323.46	3885.47	175.22	0.33
75	14338.00	91.20	178.80	10551.01	3978.31	-3965.93	325.59	3979.27	175.31	0.48
76	14433.00	90.10	178.80	10549.94	4073.23	-4060.90	327.58	4074.09	175.39	1.16
77	14528.00	89.80	179.10	10550.02	4168.14	-4155.89	329.32	4168.91	175.47	0.45
78	14622.00	91.10	178.90	10549.28	4262.05	-4249.87	330.96	4262.73	175.55	1.40
79	14717.00	89.40	178.80	10548.87	4356.97	-4344.84	332.87	4357.58	175.62	1.79
80	14812.00	90.90	179.20	10548.62	4451.89	-4439.83	334.53	4452.41	175.69	1.63
81	14907.00	90.60	179.40	10547.37	4546.77	-4534.81	335.69	4547.22	175.77	0.38
82	15001.00	89.30	179.90	10547.46	4640.63	-4628.81	336.26	4641.00	175.85	1.48
83	15096.00	87.90	180.80	10549.78	4735.39	-4723.77	335.68	4735.68	175.94	1.75
84	15191.00	87.10	179.90	10553.92	4830.10	-4818.68	335.10	4830.32	176.02	1.27
85	15286.00	86.30	178.50	10559.39	4924.83	-4913.51	336.42	4925.01	176.08	1.70
86	15380.00	91.60	178.40	10561.11	5018.73	-5007.42	338.97	5018.88	176.13	5.64
87	15475.00	92.40	177.30	10557.80	5113.65	-5102.30	342.53	5113.78	176.16	1.43
88	15569.00	92.50	176.50	10553.78	5207.56	-5196.07	347.61	5207.69	176.17	0.86
89	15664.00	92.70	176.20	10549.47	5302.46	-5290.78	353.65	5302.59	176.18	0.38
90	15759.00	91.90	176.60	10545.66	5397.39	-5385.52	359.61	5397.51	176.18	0.94
91	15853.00	90.70	177.20	10543.52	5491.36	-5479.35	364.69	5491.48	176.19	1.43
92	15948.00	92.40	177.60	10540.95	5586.31	-5574.22	369.00	5586.42	176.21	1.84
93	16042.00	92.50	177.60	10536.94	5680.21	-5668.05	372.93	5680.31	176.24	0.11
94	16137.00	92.80	177.40	10532.54	5775.09	-5762.86	377.07	5775.18	176.26	0.38
95	16231.00	92.00	177.90	10528.61	5868.99	-5856.70	380.92	5869.07	176.28	1.00
96	16325.00	92.70	177.70	10524.75	5962.89	-5950.55	384.53	5962.96	176.30	0.77
97	16420.00	92.00	176.80	10520.86	6057.80	-6045.36	389.08	6057.86	176.32	1.20
98	16514.00	92.20	176.90	10517.41	6151.74	-6139.15	394.24	6151.80	176.33	0.24
99	16608.00	92.40	176.20	10513.64	6245.66	-6232.90	399.89	6245.72	176.33	0.77
100	16702.00	92.40	175.80	10509.70	6339.58	-6326.59	406.44	6339.64	176.32	0.43
101	16796.00	90.50	176.10	10507.33	6433.54	-6420.32	413.08	6433.60	176.32	2.05
102	16890.00	91.00	176.70	10506.10	6527.53	-6514.13	418.98	6527.59	176.32	0.83
103	16985.00	90.60	176.60	10504.77	6622.52	-6608.96	424.53	6622.58	176.32	0.43
104	17080.00	90.50	176.60	10503.86	6717.51	-6703.79	430.17	6717.57	176.33	0.11
105	17173.00	90.00	176.70	10503.45	6810.51	-6796.63	435.60	6810.57	176.33	0.55



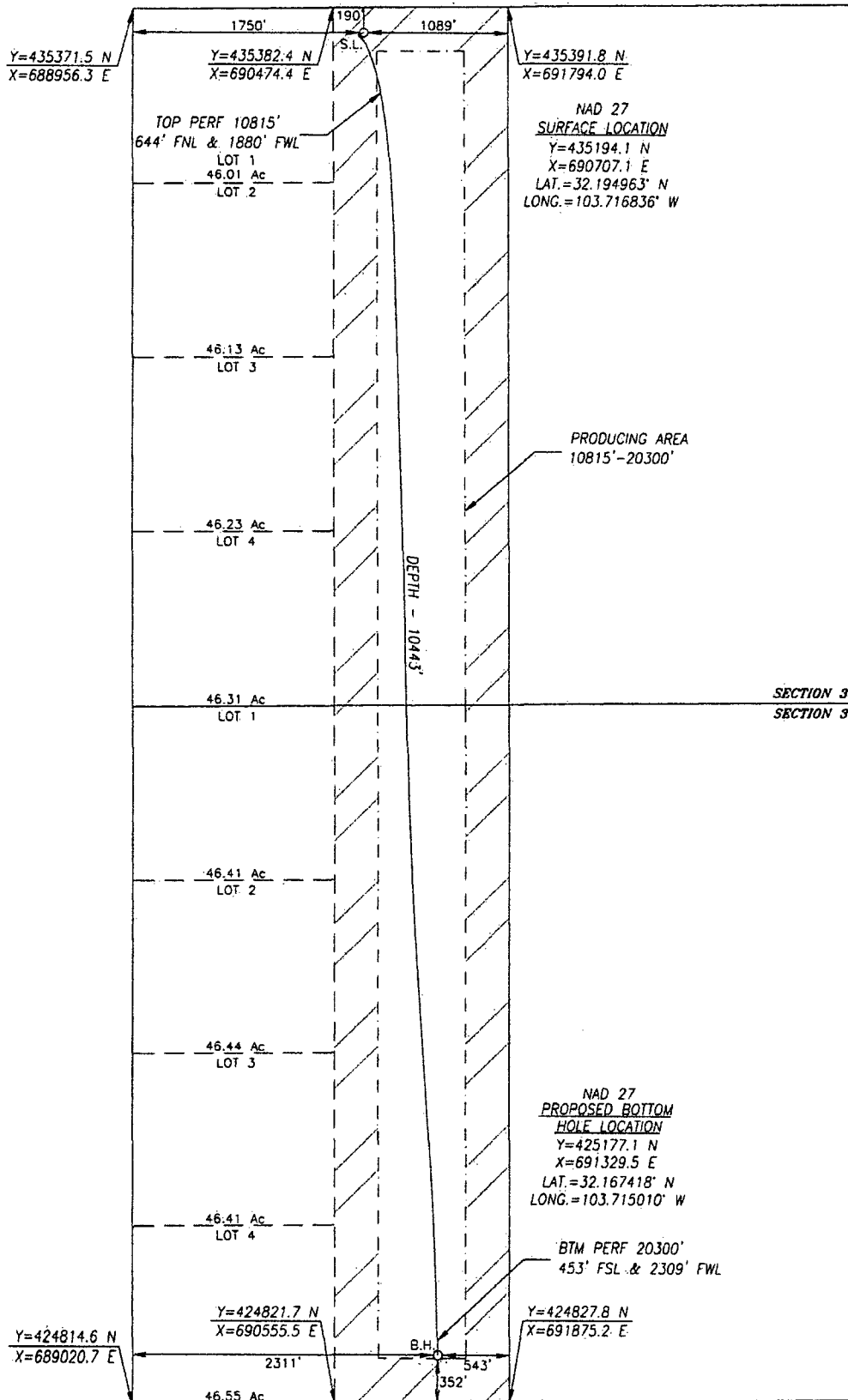
106	17268.00	90.50	177.00	10503.04	6905.51	-6891.48	440.82	6905.57	176.34	0.61
107	17363.00	90.90	177.30	10501.88	7000.50	-6986.36	445.55	7000.55	176.35	0.53
108	17457.00	91.30	177.00	10500.07	7094.48	-7080.22	450.22	7094.52	176.36	0.53
109	17552.00	92.80	177.50	10496.67	7189.40	-7175.05	454.77	7189.45	176.37	1.66
110	17647.00	92.60	177.00	10492.20	7284.29	-7269.83	459.33	7284.33	176.38	0.57
111	17741.00	91.60	176.10	10488.75	7378.23	-7363.60	464.98	7378.26	176.39	1.43
112	17836.00	91.90	176.50	10485.85	7473.18	-7458.36	471.11	7473.22	176.39	0.53
113	17930.00	91.00	176.30	10483.47	7567.15	-7552.14	477.01	7567.19	176.39	0.98
114	18025.00	92.40	175.70	10480.66	7662.10	-7646.86	483.63	7662.14	176.38	1.60
115	18119.00	92.10	175.10	10476.97	7756.01	-7740.49	491.16	7756.06	176.37	0.71
116	18214.00	91.40	174.40	10474.06	7850.91	-7835.04	499.85	7850.97	176.35	1.04
117	18309.00	91.60	174.10	10471.58	7945.80	-7929.53	509.37	7945.88	176.32	0.38
118	18404.00	90.20	174.10	10470.08	8040.70	-8024.02	519.13	8040.79	176.30	1.47
119	18498.00	89.10	174.20	10470.66	8134.61	-8117.52	528.71	8134.72	176.27	1.18
120	18592.00	88.20	175.20	10472.87	8228.54	-8211.09	537.39	8228.66	176.26	1.43
121	18686.00	87.90	175.80	10476.07	8322.46	-8304.75	544.76	8322.60	176.25	0.71
122	18781.00	88.90	176.40	10478.72	8417.42	-8399.49	551.22	8417.56	176.25	1.23
123	18875.00	89.10	177.30	10480.37	8511.41	-8493.33	556.39	8511.54	176.25	0.98
124	18969.00	90.30	177.00	10480.86	8605.40	-8587.21	561.06	8605.52	176.26	1.32
125	19064.00	91.40	176.90	10479.45	8700.38	-8682.07	566.11	8700.50	176.27	1.16
126	19158.00	92.60	177.30	10476.17	8794.32	-8775.89	570.87	8794.44	176.28	1.35
127	19252.00	91.60	177.40	10472.72	8888.25	-8869.72	575.21	8888.35	176.29	1.07
128	19345.00	93.10	177.00	10468.91	8981.16	-8962.53	579.75	8981.26	176.30	1.67
129	19440.00	93.80	177.60	10463.19	9075.98	-9057.25	584.22	9076.07	176.31	0.97
130	19534.00	92.50	177.00	10458.03	9169.83	-9151.00	588.64	9169.92	176.32	1.52
131	19628.00	91.30	177.10	10454.91	9263.77	-9244.83	593.47	9263.86	176.33	1.28
132	19722.00	92.70	177.90	10451.63	9357.70	-9338.68	597.57	9357.78	176.34	1.72
133	19817.00	91.30	177.70	10448.32	9452.62	-9433.55	601.21	9452.68	176.35	1.49
134	19911.00	92.50	177.80	10445.20	9546.54	-9527.42	604.90	9546.60	176.37	1.28
135	20005.00	91.40	178.10	10442.00	9640.46	-9621.30	608.26	9640.51	176.38	1.21
136	20099.00	90.50	177.50	10440.44	9734.42	-9715.22	611.87	9734.47	176.40	1.15
137	20193.00	90.40	177.60	10439.70	9828.41	-9809.13	615.89	9828.45	176.41	0.15
138	20287.00	89.10	178.10	10440.11	9922.38	-9903.06	619.42	9922.41	176.42	1.48
139	20349.00	88.90	178.40	10441.20	9984.34	-9965.02	621.31	9984.37	176.43	0.58
PTB	20401.00	88.90	178.40	10442.19	10036.31	-10016.99	622.76	10036.33	176.44	0.00



A handwritten signature in black ink, appearing to be 'Latiffany R Gooden', written over a horizontal line.

A large, stylized handwritten signature in black ink, possibly reading 'Latiffany R Gooden', written over a horizontal line.

Property Code	Property Name WINDWARD FEDERAL	Well Number 2H
GRID No.	Operator Name COG PRODUCTION, LLC	Elevation 3543.9



1200 0 1200

SCALE: 1"=1200'

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature

Date

Printed Name

E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JUNE 26, 2013/MARCH 5, 2014

SURVEY DATE/DATE OF GEOGRAPHIC REPORT

Signature & Seal of Professional Surveyor



Chad L. Harcrow 7/10/14
Certificate No. CHAD HARCROW 17777