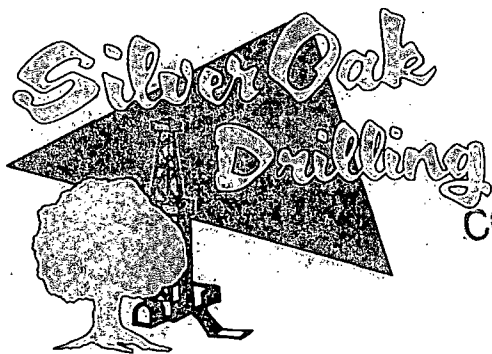
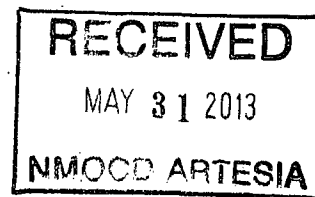




PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

COG OPERATING, L.L.C.
RECEIVED

APR 10 2013
ARTESIA WEST



March 19, 2013

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

30-015-40823

RE: Brutus 12 Federal Com #2H
370' FSL & 2260' FEL
Sec. 12, T26S, R28E
Eddy County, New Mexico

Dear Sir,

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

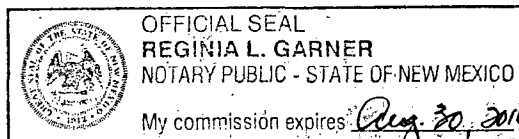
Very truly yours,

Eddie LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 19th day of March, 2013.

Notary Public



BRUTUS 12 FEDERAL COM 2H

Date	Depth	Dev	Dir	TVD
2/19/2013	175	1.10		
2/19/2013	365	0.70		
2/22/2013	600	0.50	292.20	599.98
2/22/2013	695	0.60	261.10	694.97
2/22/2013	791	0.50	198.20	790.97
2/22/2013	886	0.60	217.10	885.96
2/22/2013	982	0.70	211.50	981.96
2/22/2013	1078	0.30	162.50	1077.96
2/22/2013	1268	0.40	248.40	1267.95
2/22/2013	1364	0.40	248.40	1267.95
2/22/2013	1364	0.40	191.60	1363.95
2/22/2013	1744	0.70	156.30	
2/22/2013	1840	0.50	113.40	
2/23/2013	1934	0.70	65.10	1933.93
2/23/2013	2029	1.10	53.30	2028.91
2/23/2013	2125	1.40	75.30	2124.89
2/23/2013	2315	0.80	104.50	2314.87
2/23/2013	2506	1.60	112.20	2505.81
2/23/2013	2592	0.50	48.20	
2/25/2013	3030	0.70		
2/25/2013	3509	0.50		
2/25/2013	3953	0.50		
2/26/2013	4430	0.50		4470.00
2/26/2013	4907	1.00		
2/26/2013	5385	0.60		
2/26/2013	5883	1.50		
2/27/2013	6305	1.50		
2/28/2013	6750	0.80		
2/28/2013	7196	1.20		
2/28/2013	7608	1.10		
3/10/2013	7718	4.70	352.20	7717.08
3/10/2013	7750	11.60	4.10	7748.74
3/10/2013	7781	16.60	6.70	7778.80
3/10/2013	7813	18.90	7.60	7809.00
3/10/2013	7908	23.70	2.00	7898.00
3/10/2013	7972	26.10	2.00	7959.00
3/10/2013	8003	27.70	0.80	7983.66
3/10/2013	8035	30.20	359.70	8011.66
3/10/2013	8067	32.20	1.80	8039.03
3/10/2013	8099	36.40	2.50	8065.46
3/11/2013	8131	40.60	3.00	8090.50
3/11/2013	8226	51.40	1.30	8155.58
3/11/2013	8258	52.60	1.10	8175.28

BRUTUS 12 FEDERAL COM 2H

Date	Depth	Dev	Dir	TVD
3/11/2013	8322	59.10	3.60	8211.00
3/11/2013	8416	69.00	2.00	8252.00
3/11/2013	8479	74.50	1.50	8272.00
3/11/2013	8511	77.30	0.90	8279.91
3/11/2013	8543	81.20	358.30	8285.88
3/12/2013	8586	84.30	357.80	8288.00
3/12/2013	8663	89.00	0.20	8293.00
3/12/2013	8758	89.00		8294.00
3/12/2013	8948	89.30	359.90	8297.91
3/12/2013	9043	90.30	0.90	8298.24
3/12/2013	9139	91.50	1.60	8296.73
3/13/2013	9234	89.90	1.30	8295.51
3/13/2013	9425	89.30	2.70	8297.40
3/13/2013	9521	89.60		
3/13/2013	9616	89.60	3.60	8298.00
3/13/2013	9712	87.10	2.20	8301.00
3/13/2013	9902	88.50	1.60	8310.00
3/13/2013	9997	88.10	0.00	8313.19
3/13/2013	10188	89.50	2.30	8316.32
3/13/2013	10283	89.40	2.00	8317.24
3/13/2013	10378	89.10	2.20	8318.48
3/13/2013	10474	89.10	1.80	8319.99
3/14/2013	10569	89.30	1.60	8321.31
3/14/2013	10760	89.00	1.30	8323.90
3/14/2013	10856	88.50	0.60	8325.99
3/14/2013	10951	89.50	0.00	8327.65
3/14/2013	11142	89.60	359.50	8328.40
3/14/2013	11429	89.30	358.10	8331.15
3/14/2013	11524	89.90	358.30	8331.82
3/14/2013	11620	90.20	357.60	8331.73
3/15/2013	11714	89.30	358.80	8332.14
3/15/2013	11810	89.60	358.80	8333.06
3/15/2013	11905	88.40	359.50	8334.72
3/15/2013	11999	88.00	359.50	8337.68
3/16/2013	12095	87.90	359.90	8341.11
3/16/2013	12188	87.10	359.70	8345.17
3/16/2013	12283	87.50	0.00	8349.64
3/16/2013	12378	89.80	359.00	8351.90
3/16/2013	12473	90.70	0.40	8351.40
3/16/2013	12571	90.70	0.40	8350.27

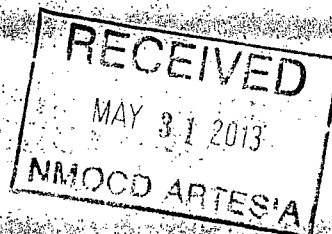


A GYRO TECHNOLOGIES INC. COMPANY

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

March 13, 2013

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

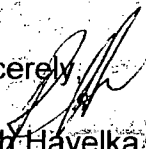


Attn: Kanicia Castillo

RE: **Brutus 12 Federal Com No. 002H**

Please find enclosed a copy of the survey from 0.00' to 7950.00' ran on the above referenced well.

Sincerely,

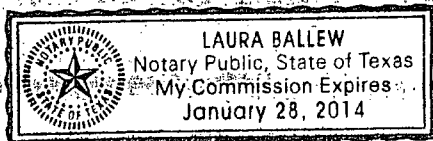

Keith Havelka
Operations

STATE OF TEXAS §
§
COUNTY OF NUECES §

This instrument was acknowledged before me on the 13th day of March
A.D., 2013, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas



Company: COG Operating LLC (Concho)
Lease/Well: Brutus 12 Federal Com / No. 002H



Rig Name: Silver Oak 7
State/County: New Mexico / Eddy
Latitude: 32.05 Longitude: -104.04
GRID North is 0.16 Degrees East of True North
VS-Azi: 0.00 Degrees

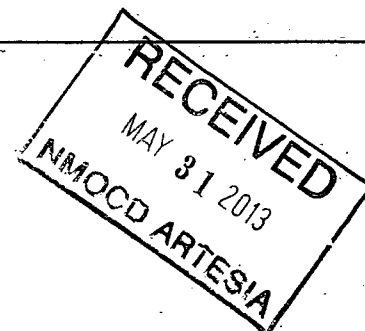
Depth Reference: RKB = 17.8'

DRILLOG HA/GYRO SURVEY CALCULATIONS

Filename: gyro:survey.ut
Minimum Curvature Method
Report Date/Time: 3/13/2013 / 13:42

Vaughn Energy Services
Midland, Texas
432-563-5444

Survey Engineer: Tim Dillon
Brutus 12 Federal Com No. 002H / API 30-015-40823



Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W 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	****
100.00	1.02	261.44	99.99	-0.13	-0.88	0.89	261.44	1.02
200.00	1.07	246.53	199.98	-0.64	-2.61	2.69	256.29	0.28
300.00	0.87	248.75	299.96	-1.29	-4.18	4.37	252.90	0.21
400.00	0.79	248.12	399.95	-1.82	-5.52	5.81	251.80	0.09
500.00	0.58	270.67	499.95	-2.07	-6.67	6.98	252.78	0.33
600.00	0.37	293.23	599.94	-1.93	-7.47	7.72	255.50	0.27
700.00	0.31	247.22	699.94	-1.91	-8.02	8.24	256.61	0.27
800.00	0.23	201.22	799.94	-2.20	-8.34	8.62	255.25	0.22
900.00	0.24	226.63	899.94	-2.52	-8.56	8.92	253.59	0.10
1000.00	0.26	252.05	999.94	-2.73	-8.93	9.34	252.98	0.11
1100.00	0.29	272.42	1099.94	-2.79	-9.40	9.80	253.45	0.10
1200.00	0.31	292.79	1199.94	-2.68	-9.89	10.25	254.85	0.11
1300.00	0.20	209.06	1299.94	-2.73	-10.22	10.58	255.07	0.35
1400.00	0.09	125.33	1399.94	-2.92	-10.24	10.65	254.09	0.21
1500.00	0.15	136.33	1499.94	-3.06	-10.09	10.54	253.12	0.07
1600.00	0.20	147.34	1599.93	-3.30	-9.90	10.44	251.55	0.06
1700.00	0.31	129.47	1699.93	-3.63	-9.60	10.26	249.31	0.14
1800.00	0.43	111.60	1799.93	-3.94	-9.04	9.86	246.45	0.16

Measured Depth FT	Incl Angle Deg	Drift Direction Dég	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Dég	Dogleg Severity Deg/100
1900.00	0.54	71.96	1899.93	-3.93	-8.24	9.13	244:50	0.35
2000.00	0.65	32.32	1999.92	-3.30	-7.48	8.18	246:19	0.42
2100.00	0.58	49:77	2099.92	-2.49	-6.79	7.24	249:84	0.20
2200.00	0.52	67.21	2199.91	-1.99	-5.99	6.31	251:62	0.18
2300.00	0.94	90.78	2299.90	-1.83	-4.75	5.09	248:96	0.52
2400.00	1.37	114:34	2399.88	-2.33	-2.83	3.67	230:53	0.63
2500.00	0.85	75.22	2499.87	-2.64	-1.03	2.83	201:24	0.89
2600.00	0.32	36.09	2599.86	-2.23	-0.15	2.23	183:82	0.63
2700.00	0.58	10.04	2699.86	-1.51	0.10	1.51	176.12	0.32
2800.00	0.83	343.99	2799.85	-0.31	-0.01	0.31	181:98	0.41
2900.00	0.68	328:02	2899.84	-0.89	-0.53	1.04	329:44	0.26
3000.00	0.53	312.05	2999.84	1.70	-1.18	2.08	325.22	0.23
3100.00	0.72	310.26	3099.83	2.42	-2.00	3.14	320:35	0.19
3200.00	0.89	308:47	3199.82	3.30	-3.09	4.52	316:94	0.17
3300.00	0.61	295.00	3299.81	4.01	-4.18	5.79	313:83	0.32
3400.00	0.34	281.53	3399.81	4.30	-4.96	6.56	310:93	0.29
3500.00	0.37	282.47	3499.81	4.43	-5.56	7.11	308:52	0.03
3600.00	0.37	283.42	3599.81	4.57	-6.19	7.70	306.44	0.01
3700.00	0.53	304.17	3699.80	4.91	-6.90	8.47	305:45	0.23
3800.00	0.69	324.92	3799.80	5.67	-7.63	9.50	306:61	0.27
3900.00	0.76	309.64	3899.79	6.59	-8.49	10.74	307:81	0.20
4000.00	0.82	294.37	3999.78	7.30	-9.65	12.10	307.12	0.22
4100.00	0.73	307.03	4099.77	7.98	-10.81	13.44	306:44	0.20
4200.00	0.63	319.69	4199.76	8.78	-11.67	14.61	306:96	0.18
4300.00	0.54	290.63	4299.76	9.36	-12.47	15.59	306:91	0.30
4400.00	0.45	261.57	4399.75	9.47	-13.29	16.32	305:47	0.26
4500.00	0.44	257.91	4499.75	9.33	-14.06	16.87	303:58	0.03
4600.00	0.44	254.24	4599.75	9.15	-14.80	17.40	301:71	0.03
4700.00	0.65	227.08	4699.74	8.66	-15.59	17.84	299.04	0.32
4800.00	0.85	199.93	4799.74	7.58	-16.26	17.94	294:98	0.40
4900.00	0.91	197.91	4899.72	6.12	-16.76	17.84	290:06	0.07
5000.00	1.00	195.90	4999.71	4.53	-17.24	17.82	284:71	0.09
5100.00	0.93	198.04	5099.70	2.92	-17.73	17.97	279:36	0.08
5200.00	0.88	200.18	5199.68	1.43	-18.24	18.30	274:49	0.06
5300.00	1.02	217.34	5299.67	0.01	-19.05	19.05	270:02	0.31
5400.00	1.15	234.50	5399.65	-1.29	-20.41	20.45	266:40	0.35
5500.00	1.24	225.54	5499.63	-2.63	-22.00	22.16	263.18	0.21
5600.00	1.33	216.59	5599.61	-4.33	-23.47	23.87	259:56	0.22
5700.00	1.47	220.56	5699.58	-6.23	-25.00	25.76	256:00	0.16

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	1.60	224.53	5799.54	-8.20	-26.80	28.03	252.99	0.17
5900.00	1.68	220.60	5899.50	-10.31	-28.74	30.53	250.27	0.14
6000.00	1.78	216.67	5999.45	-12.67	-30.62	33.14	247.52	0.16
6100.00	1.67	219.37	6099.41	-15.05	-32.48	35.79	245.14	0.14
6200.00	1.56	222.08	6199.37	-17.19	-34.32	38.38	243.40	0.13
6300.00	1.29	224.62	6299.34	-19.00	-36.02	40.72	242.19	0.28
6400.00	1.03	227.16	6399.32	-20.41	-37.47	42.67	241.42	0.26
6500.00	1.19	209.89	6499.30	-21.92	-38.65	44.43	240.44	0.37
6600.00	1.35	192.62	6599.27	-23.97	-39.42	46.14	238.70	0.41
6700.00	1.25	187.31	6699.25	-26.21	-39.82	47.67	236.65	0.15
6800.00	1.16	182.00	6799.23	-28.30	-39.99	48.99	234.71	0.15
6900.00	0.81	221.77	6899.21	-29.84	-40.50	50.31	233.61	0.75
7000.00	0.47	261.53	6999.21	-30.43	-41.38	51.37	233.66	0.54
7100.00	0.69	210.41	7099.20	-31.02	-42.09	52.28	233.61	0.54
7200.00	0.92	159.28	7199.19	-32.29	-42.11	53.07	232.52	0.73
7300.00	1.18	156.89	7299.18	-33.99	-41.42	53.58	230.63	0.26
7400.00	1.42	154.50	7399.15	-36.05	-40.49	54.21	228.32	0.24
7500.00	1.43	149.75	7499.12	-38.24	-39.33	54.86	225.80	0.12
7600.00	1.47	164.99	7599.09	-40.56	-38.37	55.83	223.41	0.39
7700.00	1.43	197.45	7699.06	-42.99	-38.41	57.65	221.78	0.81
7800.00	1.90	227.05	7799.02	-45.31	-40.00	60.44	221.44	0.97
7900.00	1.78	251.19	7898.97	-46.94	-42.68	63.45	222.28	0.78
7950.00	2.20	274.26	7948.94	-47.12	-44.37	64.72	223.28	1.79



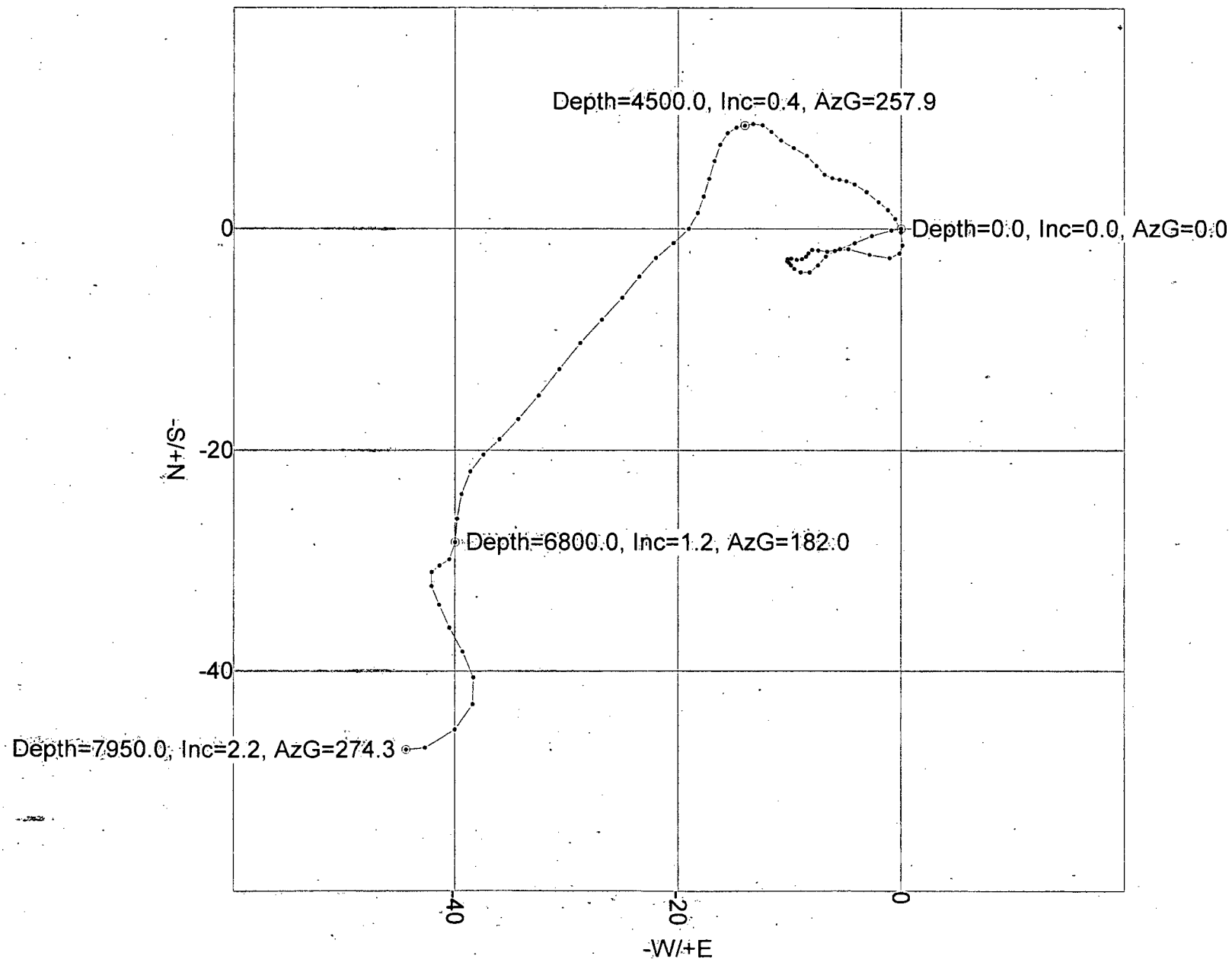
Vaughn Energy Services

Midland, Texas

432-563-5444

Survey Engineer: Tim Dillon

Brutus 12 Federal Com No: 002H / API 30-015-40823



VES Survey Date: 03/07/2013



April 17, 2013

COG OPERATING, LLC
RECEIVED
APR 29 2013
ARTESIA WEST

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

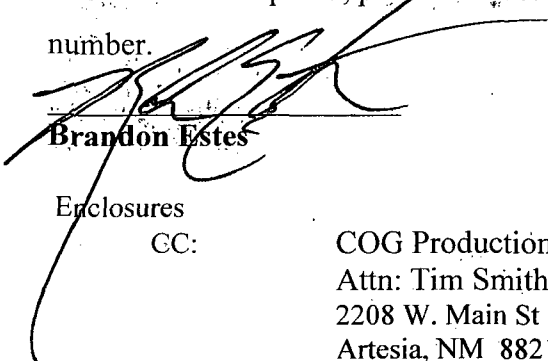
Attn: Jackie Lathan

Re: COG Production, L.L.C.
Brutus 12 Federal Com #002H
Red Bluff; Bone Spring
Eddy County, New Mexico
API# 30-015-40823

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Noah Townsend	Original Hole	7,718 ft. to 12,571 ft.	03-09-13 to 03-17-13	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Brandon Estes

Enclosures

CC:

COG Production, L.L.C.
Attn: Tim Smith
2208 W. Main St
Artesia, NM 88210

COG Production, L.L.C.
Attn: Stormi Davis
2208 W. Main St
Artesia, NM 88210

NMEMaNRD\COG Production, L.L.C.\Brutus12 Federal Com#002H\C131029

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-582-7297

ORIGINAL



April 17, 2013

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of March 09, 2013 thru March 17, 2013, conduct or supervise the taking of a SEDS MWD Survey from a depth of 7,718 feet to 12,571 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of COG Production, L.L.C, for the Brutus 12 Federal Com #002H well, API # **30-015-40823** in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

Todd Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-582-7297

30-015-40823 BRUTUS 12 FEDERAL COM #002H [39528]

General Well Information

Status: New (Not Drilled or Completed)

Well Type: Oil
Work Type: New
Surface Location: O-12-26S-28E 370 FSL 2260 FEL
Lat/Long: 32.0508777181681 -104.039437403403
GL Elevation: 2936

Direction: 0
Lease Type: Federal

Sing/Mult Compl: Single
Potash Waiver:

Proposed Formation and/or Notes

BONE SPRING

Depths

Proposed: 12559

Measured: 0
Plugback Measured:

Formation Tops

Formation	Top	Method Obtained	Producing
-----------	-----	-----------------	-----------

Event Dates

Initial APD Approval: 9/27/2012
Most Recent APD Approval: 9/27/2012
APD Cancellation:
APD Extension Approval:
Spud: 12/31/9999
Approved Temporary Abandonment:
Shut In Waiting For Pipeline:
Plug and Abandoned Intent Received:
Well Plugged:
Site Release:
Last Inspection:

Current APD Expiration: 9/27/2014

Expiration:

Plugged, Not Released
Expiration:
Intention To Plug:
Last MIT:

History

Comments

Operator

Company: [217955] COG PRODUCTION, LLC
Address: 600 W. Illinois Ave
Midland, TX 79701
Country: U.S.A.
Main Phone: 432-683-7443

Central Contact Person

Hobbs Contacts

Artesia Contacts

Pits

Casing

Well Completions

[51010] RED BLUFF;BONE SPRING, SOUTH

Status: New, Not Drilled

Last Produced:

Financial Assurance

Compliance

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports ([Inactive Well Report](#), [Financial Assurance Report](#)).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

Complaints, Incidents and Spills

No Incidents Found

Please note that incidents that impact ground water are recorded along with "facilities" which may not be wells, so although the initial report may be recorded here as a spill, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

Orders

No Orders Found



Job Number: C131029

Company: Concho Oil and Gas Operating, LLC

Lease/Well: Brutus 12 Federal Com # 2 H

Location: Eddy County

Rig Name: Silver Oak # 7

RKB: N/A

G.L. or M.S.L.: N/A

State/Country: New Mexico / USA

Declination: 7.43° Corrected To Grid

Grid: 7.43°

File name: C:\WINSERVE\DOCS\C131029.SVY

Date/Time: 22-Mar-13 / 14:09

Curve Name: SES ORIG. HOLE SURVEY RAN ON 3-08-13

Stryker Energy Directional Services, LLC.

WINSERVE SURVEY CALCULATIONS Minimum Curvature Method Vertical Section Plane 359.80 Vertical Section Referenced to Wellhead Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie-In Data Provided by VES Gyro Survey									
7700.00	1.43	197.45	7699.06	-42.99	-38.41	-42.86	57.65	221.78	.00
7718.00	4.70	357.20	7717.04	-42.47	-38.51	-42.33	57.33	222.20	33.68
7750.00	11.60	4.10	7748.70	-37.94	-38.35	-37.81	53.95	225.30	21.74
7781.00	16.60	6.70	7778.76	-30.43	-37.61	-30.30	48.38	231.02	16.25
7813.00	18.90	7.60	7809.23	-20.75	-36.39	-20.63	41.89	240.30	7.24
7844.00	19.00	5.30	7838.55	-10.75	-35.26	-10.63	36.86	253.04	2.43
7876.00	21.60	4.60	7868.56	.31	-34.30	.43	34.31	270.51	8.16
7908.00	23.70	2.00	7898.09	12.61	-33.61	12.73	35.89	290.56	7.27
7940.00	25.60	1.60	7927.18	25.95	-33.19	26.06	42.13	308.02	5.96
7972.00	26.10	2.00	7955.98	39.89	-32.75	40.01	51.61	320.61	1.65
8003.00	27.70	.80	7983.62	53.91	-32.41	54.03	62.91	328.99	5.45
8035.00	30.20	359.70	8011.62	69.40	-32.35	69.51	76.57	335.01	7.99
8067.00	32.20	1.80	8038.99	85.97	-32.13	86.08	91.78	339.51	7.11
8099.00	36.40	2.50	8065.42	103.99	-31.44	104.10	108.64	343.18	13.18
8131.00	40.60	3.00	8090.46	123.88	-30.48	123.99	127.58	346.18	13.16
8162.00	45.00	2.00	8113.20	144.92	-29.57	145.02	147.90	348.47	14.36
8194.00	48.90	1.30	8135.04	168.29	-28.90	168.39	170.75	350.25	12.29
8226.00	51.40	1.30	8155.54	192.85	-28.35	192.94	194.92	351.64	7.81
8258.00	52.60	1.10	8175.24	218.06	-27.82	218.15	219.82	352.73	3.78
8290.00	55.30	2.50	8194.07	243.91	-27.00	244.01	245.40	353.68	9.15
8322.00	59.10	3.60	8211.41	270.77	-25.56	270.85	271.97	354.61	12.22
8354.00	62.80	3.40	8226.94	298.68	-23.86	298.77	299.64	355.43	11.58
8385.00	66.30	2.20	8240.26	326.64	-22.50	326.71	327.41	356.06	11.82
8416.00	69.00	2.00	8252.05	355.29	-21.45	355.36	355.93	356.55	8.73

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
8448.00	71.20	1.50	8262.94	385.36	-20.53	385.43	385.91	356.95	7.03
8479.00	74.50	1.50	8272.08	414.97	-19.75	415.03	415.44	357.27	10.65
8511.00	77.30	.90	8279.87	445.99	-19.10	446.06	446.40	357.55	8.94
8543.00	81.20	358.30	8285.84	477.42	-19.33	477.49	477.81	357.68	14.57
8567.00	84.30	357.80	8288.87	501.21	-20.14	501.28	501.62	357.70	13.08
8599.00	87.40	358.60	8291.19	533.11	-21.14	533.18	533.53	357.73	10.00
8631.00	88.60	.20	8292.30	565.09	-21.47	565.16	565.49	357.82	6.25
8663.00	89.00	.20	8292.97	597.08	-21.36	597.15	597.46	357.95	1.25
8758.00	89.00	.80	8294.63	692.06	-20.53	692.13	692.37	358.30	.63
8854.00	88.90	.40	8296.39	788.04	-19.53	788.10	788.28	358.58	.43
8948.00	89.30	359.90	8297.87	882.03	-19.28	882.09	882.24	358.75	.68
9043.00	90.30	.90	8298.20	977.02	-18.62	977.08	977.20	358.91	1.49
9139.00	91.50	1.60	8296.69	1072.98	-16.53	1073.04	1073.11	359.12	1.45
9234.00	89.90	1.30	8295.53	1167.94	-14.12	1167.99	1168.03	359.31	1.71
9330.00	89.30	2.20	8296.20	1263.90	-11.19	1263.93	1263.95	359.49	1.13
9425.00	89.30	2.70	8297.36	1358.80	-7.13	1358.82	1358.82	359.70	.53
9521.00	89.60	3.60	8298.28	1454.65	-1.85	1454.65	1454.65	359.93	.99
9616.00	89.60	3.60	8298.95	1549.46	4.11	1549.44	1549.47	.15	.00
9712.00	87.10	2.20	8301.71	1645.29	8.97	1645.25	1645.31	.31	2.98
9807.00	87.00	1.50	8306.60	1740.11	12.03	1740.06	1740.15	.40	.74
9902.00	88.50	1.60	8310.33	1835.00	14.60	1834.94	1835.06	.46	1.58
9997.00	88.10	.00	8313.15	1929.95	15.92	1929.88	1930.01	.47	1.74
10092.00	89.30	2.30	8315.30	2024.90	17.83	2024.82	2024.97	.50	2.73
10188.00	89.50	2.30	8316.31	2120.81	21.68	2120.72	2120.92	.59	.21
10283.00	89.40	2.00	8317.22	2215.74	25.24	2215.64	2215.89	.65	.33
10378.00	89.10	2.20	8318.46	2310.67	28.73	2310.56	2310.85	.71	.38
10474.00	89.10	1.80	8319.97	2406.60	32.08	2406.47	2406.81	.76	.42
10569.00	89.30	1.60	8321.30	2501.55	34.89	2501.41	2501.79	.80	.30
10665.00	89.30	1.60	8322.47	2597.50	37.57	2597.36	2597.78	.83	.00
10760.00	89.00	1.30	8323.88	2692.46	39.98	2692.31	2692.76	.85	.45
10856.00	88.50	.60	8325.97	2788.43	41.57	2788.26	2788.74	.85	.90
10951.00	89.50	.00	8327.63	2883.41	42.07	2883.24	2883.71	.84	1.23
11046.00	90.00	.40	8328.05	2978.41	42.40	2978.24	2978.71	.82	.67
11142.00	89.60	359.50	8328.38	3074.40	42.31	3074.24	3074.70	.79	1.03
11237.00	89.50	359.00	8329.13	3169.39	41.07	3169.23	3169.66	.74	.54
11333.00	89.40	358.30	8330.05	3265.36	38.81	3265.21	3265.59	.68	.74
11429.00	89.30	358.10	8331.14	3361.31	35.79	3361.16	3361.50	.61	.23
11524.00	89.90	358.30	8331.80	3456.26	32.81	3456.12	3456.41	.54	.67
11620.00	90.20	357.60	8331.72	3552.20	29.38	3552.07	3552.32	.47	.79
11714.00	89.30	358.80	8332.13	3646.15	26.42	3646.03	3646.24	.42	1.60
11810.00	89.60	358.80	8333.05	3742.12	24.41	3742.01	3742.20	.37	.31
11905.00	88.40	359.50	8334.71	3837.09	23.00	3836.99	3837.16	.34	1.46
11999.00	88.00	359.50	8337.66	3931.04	22.18	3930.94	3931.11	.32	.43
12095.00	87.90	359.90	8341.09	4026.98	21.68	4026.88	4027.04	.31	.43
12188.00	87.10	359.70	8345.15	4119.89	21.36	4119.79	4119.95	.30	.89

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
12283.00	87.50	.00	8349.63	4214.78	21.11	4214.68	4214.84	.29	.53
12378.00	89.80	359.90	8351.86	4309.75	21.03	4309.65	4309.80	.28	2.42
12473.00	90.70	.40	8351.45	4404.75	21.27	4404.65	4404.80	.28	1.08
12571.00	90.70	.40	8350.25	4502.74	21.96	4502.63	4502.79	.28	.00
Projection to Bit									
12622.00	90.70	.40	8349.63	4553.73	22.31	4553.63	4553.79	.28	.00