



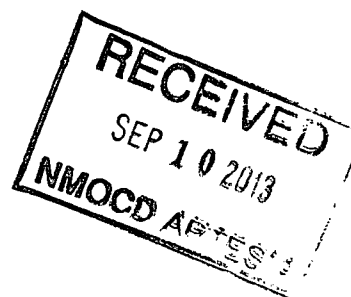
PHOENIX
TECHNOLOGY SERVICES

March 28, 2013

30-015-39814

COG Operating LLC
Concho Resources Inc.
Attention: Regulatory Department
550 W. Texas Ave., Suite 100
Midland, Texas 79701

Re: Concho Resources Inc.
Patton 5 Fee #1H
Eddy Co., NM
API #30-015-39814
Job No. 1310304



Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the survey certification, surveys, and lease plat for the above referenced well with the State of New Mexico Oil Conservation Division – District 2 via certified mail. A copy of the filing is attached for your records.

Name of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Robert Dillon	1H	2,306	7,232	03/16/2013	03/23/2013	MWD

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

Kelly Jo Walter

Kelly Jo Walter
Operations Administrator

PHOENIX TECHNOLOGY SERVICES SURVEY DATA CERTIFICATION



PHOENIX
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER 1310304

OPERATOR COG Operating

WELL NAME Patton 5 Fee # 1H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER 30-015-39814

PROPOSED DIRECTION 89.64

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
2,230 ft	2,228.92 ft	1.55	175.22	-60.59	5.07	Gyro (VES)

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
16-Mar-13	2,306 ft	1.5	185.1

SURVEY INSTRUMENT TYPE
PHOENIX MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
23-Mar-13	7,232 ft	87.7	90.4

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
23-Mar-13	7,294 ft	87.7	90.4

Robert Dillon
PRINT YOUR NAME ABOVE
Robert Dillon
SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.84
DECLINATION OR GRID	Grid

3-24-2013
TODAY'S DATE

MWD SUPERVISOR 1

Bob Dillon

DIRECTIONAL DRILLER 1

Andrew Hodgkins

MWD SUPERVISOR 2

Eric Burchinal

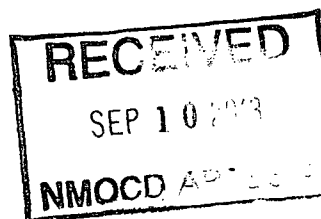
DIRECTIONAL DRILLER 2

Nathan Hodgkins

1805 Brittmore Road

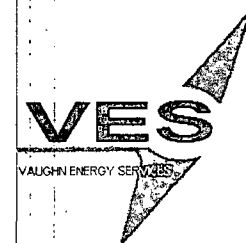
Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)





Company: COG Operating LLC (Concho)
 Lease/Well: Patton 5 Fee/No 001H
 Location: S5 T19s R26e
 Rig Name: JW #4
 State/County: New Mexico/Eddy
 Latitude: 32.70, Longitude: -104.41
 GRID North is 0.04 Degrees West of True North
 VS-Azi: 0.00 Degrees



RKB : 13 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: patton 5 fee #1h gyro survey.ut

Minimum Curvature Method

Report Date/Time: 3/21/2013 / 16:31

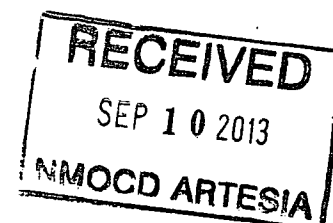
Vaughn Energy Services

(432) 563-5444

Gardendale, TX

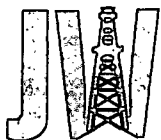
Surveyor: Dustin Wedel

Patton 5 Fee No 001H / API 30-015-39814



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	0.42	180.84	100.00	-0.37	-0.01	0.37	180.84	0.42
200.00	0.57	177.75	200.00	-1.23	0.01	1.23	179.58	0.16
300.00	0.33	153.08	299.99	-1.99	0.16	1.99	175.47	0.31
400.00	0.52	167.64	399.99	-2.68	0.38	2.71	171.88	0.22
500.00	0.63	168.52	499.98	-3.66	0.59	3.70	170.87	0.11
600.00	1.11	155.07	599.97	-5.08	1.11	5.20	167.70	0.53
700.00	0.95	168.00	699.96	-6.77	1.69	6.98	165.99	0.29
800.00	1.09	183.50	799.94	-8.53	1.80	8.71	168.06	0.31
900.00	1.28	178.98	899.92	-10.59	1.77	10.74	170.54	0.22
1000.00	1.32	177.63	999.89	-12.86	1.83	12.99	171.89	0.05
1100.00	1.61	167.54	1099.86	-15.39	2.18	15.54	171.92	0.39
1200.00	2.07	168.10	1199.81	-18.53	2.86	18.75	171.22	0.46
1300.00	2.34	168.55	1299.73	-22.30	3.64	22.59	170.73	0.27
1400.00	2.71	179.06	1399.64	-26.66	4.08	26.97	171.29	0.59
1500.00	2.60	175.13	1499.53	-31.28	4.31	31.58	172.15	0.21
1600.00	2.82	173.83	1599.42	-35.98	4.77	36.30	172.45	0.22
1700.00	2.73	180.71	1699.30	-40.80	5.00	41.11	173.01	0.34
1800.00	2.74	180.90	1799.19	-45.57	4.94	45.84	173.82	0.02

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
1900.00	2.12	176.76	1899.10	-49.81	5.00	50.06	174.26	0.65
2000.00	2.05	178.89	1999.03	-53.44	5.14	53.68	174.50	0.10
2100.00	1.66	178.08	2098.98	-56.67	5.23	56.91	174.73	0.39
2200.00	1.83	186.64	2198.93	-59.70	5.09	59.92	175.13	0.31
2230.00	1.55	175.22	2228.92	-60.59	5.07	60.80	175.22	1.47



DRILLING INC. Oil Well Drilling Contractor

Post Office Box 160 Artesia, New Mexico 88211-0160 Office (575) 748-8704 Fax (575) 748-8719

March 18, 2013

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

Re: Patton 5 Fee # 1 H
Sec. 5, T-19-S, R-26-E
Eddy County, New Mexico

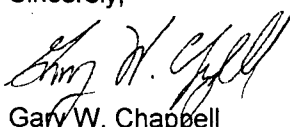
Attn: Jim Evans

The following is a Deviation Survey on the referenced well in Eddy County, New Mexico:

139' - 0.5°	769' - 1.75°	1492' - 3°	1990' - 0.75°
371' - 0.5°	1014' - 1.75°	1741' - 2.5°	



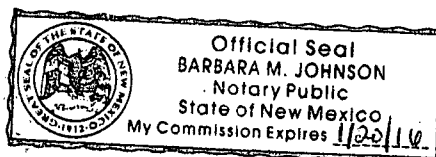
Sincerely,


Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
COUNTY OF EDDY)

The foregoing was acknowledged before me this 18th day of March, 2013 by Gary W. Chappell.


NOTARY PUBLIC





COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Patton 5 Fee

#1H

Wellbore #1 / Job #1310304

Survey: Phoenix MWD Survey

Standard Survey Report

24 March, 2013



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County - New Mexico (NAD 27 NME)	TVD Reference:	RF @ 3394.00usft (JW 4)
Site:	Patton 5 Fee	MD Reference:	RF @ 3394.00usft (JW 4)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310304	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB v5000

Project	Eddy County, New Mexico (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Patton 5 Fee		
Site Position:		Northing:	613,610.70 usft
From:	Map	Easting:	475,920.20 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 12.805817 N
		Longitude:	104° 24' 41.761820 W
		Grid Convergence:	-0.04 °

Well	#1H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 41' 44.586409 N
		Longitude:	104° 24' 40.545592 W
		Ground Level:	3,381.00 usft

Wellbore	Wellbore #1 / Job #1310304		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	03/16/13	7.79
			Dip Angle
			(°)
			Field Strength
			(nT)
			60.44
			48,632

Design	Surveys (JW 4)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			89.64

Survey/Program	Date 03/24/13		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	2,230.00	VES Gyro (Wellbore #1 / Job #1310304)	VES-ISCWSA-GYRO-3
2,306.00	7,294.00	Phoenix MWD Survey (Wellbore #1 / Job #	MWD
			Description
			Biaxial Semi-Cont. Gyro
			MWD - Standard

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
2,230.00	1.55	175.22	2,228.92	-60.61	5.07	4.69	0.00	0.00	0.00	
Tie-on to VES Gyro										
2,306.00	1.50	185.10	2,304.89	-62.62	5.07	4.67	0.35	-0.07	13.00	
Phoenix First MWD Survey										
2,400.00	3.40	85.50	2,398.83	-63.63	7.74	7.34	4.19	2.02	-105.96	
2,431.00	6.30	74.60	2,429.72	-63.11	10.29	9.90	9.77	9.35	-35.16	
2,462.00	9.40	70.00	2,460.42	-61.79	14.31	13.93	10.20	10.00	-14.84	
2,493.00	12.00	68.70	2,490.88	-59.75	19.70	19.32	8.42	8.39	-4.19	
2,524.00	15.60	68.50	2,520.98	-57.05	26.58	26.22	11.61	11.61	-0.65	



Phoenix Technology Services
Survey Report



Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County- New Mexico (NAD 27/NME)	TVD Reference:	RF @ 3394'00usft (JW-4)
Site:	Patton 5 Fee	MD Reference:	RF @ 3394'00usft (JW-4)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310304	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW-4)	Database:	GCR.DB.V5000

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,555.00	19.30	68.00	2,550.55	-53.61	35.21	34.87	11.95	11.94	-1.61
2,587.00	22.90	68.10	2,580.40	-49.30	45.89	45.58	11.25	11.25	0.31
2,618.00	26.20	70.00	2,608.59	-44.71	57.92	57.64	10.94	10.65	6.13
2,649.00	29.90	72.20	2,635.95	-40.00	71.72	71.46	12.39	11.94	7.10
2,681.00	33.00	74.70	2,663.25	-35.27	87.72	87.50	10.51	9.69	7.81
2,712.00	36.60	76.20	2,688.70	-30.83	104.84	104.65	11.94	11.61	4.84
2,743.00	39.80	77.70	2,713.06	-26.51	123.52	123.35	10.75	10.32	4.84
2,774.00	43.40	79.40	2,736.24	-22.44	143.69	143.54	12.17	11.61	5.48
2,805.00	46.60	80.80	2,758.15	-18.68	165.28	165.16	10.80	10.32	4.52
2,836.00	49.60	82.50	2,778.85	-15.34	188.11	188.01	10.50	9.68	5.48
2,867.00	52.80	84.40	2,798.28	-12.59	212.10	212.02	11.37	10.32	6.13
2,899.00	55.60	86.60	2,817.00	-10.56	237.97	237.90	10.37	8.75	6.88
2,930.00	58.50	88.40	2,833.86	-9.43	263.96	263.89	10.55	9.35	5.81
2,961.00	61.50	89.50	2,849.36	-8.95	290.80	290.73	10.15	9.68	3.55
2,992.00	64.00	90.30	2,863.55	-8.90	318.35	318.29	8.38	8.06	2.58
3,023.00	67.80	90.20	2,876.20	-9.02	346.65	346.58	12.26	12.26	-0.32
3,055.00	69.80	89.80	2,887.78	-9.02	376.48	376.41	6.36	6.25	-1.25
3,086.00	73.10	89.10	2,897.64	-8.74	405.86	405.80	10.86	10.65	-2.26
3,117.00	75.40	88.90	2,906.05	-8.22	435.69	435.63	7.45	7.42	-0.65
3,148.00	78.90	88.20	2,912.94	-7.45	465.90	465.84	11.50	11.29	-2.26
3,180.00	82.30	87.30	2,918.17	-6.21	497.44	497.39	10.98	10.63	-2.81
3,211.00	85.10	87.20	2,921.57	-4.73	528.22	528.18	9.04	9.03	-0.32
3,242.00	87.60	87.40	2,923.54	-3.28	559.12	559.08	8.09	8.06	0.65
3,335.00	91.50	87.80	2,924.27	0.62	652.01	652.00	4.22	4.19	0.43
3,429.00	90.10	88.60	2,922.96	3.57	745.95	745.96	1.72	-1.49	0.85
3,523.00	88.10	90.10	2,924.44	4.64	839.93	839.94	2.66	-2.13	1.60
3,616.00	88.10	90.30	2,927.52	4.31	932.88	932.89	0.21	0.00	0.22
3,710.00	88.10	90.40	2,930.64	3.74	1,026.82	1,026.83	0.11	0.00	0.11
3,803.00	87.80	89.70	2,933.97	3.66	1,119.76	1,119.76	0.82	-0.32	-0.75
3,897.00	87.20	88.90	2,938.07	4.80	1,213.67	1,213.67	1.06	-0.64	-0.85
3,990.00	88.70	89.50	2,941.39	6.10	1,306.59	1,306.61	1.74	1.61	0.65
4,084.00	88.60	88.80	2,943.61	7.49	1,400.56	1,400.58	0.75	-0.11	-0.74
4,177.00	87.90	90.60	2,946.45	7.98	1,493.51	1,493.53	2.08	-0.75	1.94
4,270.00	87.90	89.90	2,949.86	7.58	1,586.44	1,586.46	0.75	0.00	-0.75
4,364.00	87.80	89.50	2,953.38	8.07	1,680.38	1,680.39	0.44	-0.11	-0.43
4,457.00	87.50	89.20	2,957.20	9.12	1,773.29	1,773.31	0.46	-0.32	-0.32
4,551.00	88.50	90.60	2,960.48	9.29	1,867.23	1,867.25	1.83	1.06	1.49
4,644.00	88.00	90.40	2,963.32	8.47	1,960.18	1,960.20	0.58	-0.54	-0.22
4,738.00	87.40	90.10	2,967.09	8.06	2,054.11	2,054.12	0.71	-0.64	-0.32
4,833.00	88.70	91.20	2,970.32	6.99	2,149.04	2,149.04	1.79	1.37	1.16
4,926.00	87.90	91.50	2,973.08	4.80	2,241.98	2,241.96	0.92	-0.86	0.32
5,020.00	88.90	91.90	2,975.70	2.01	2,335.90	2,335.86	1.15	1.06	0.43
5,114.00	88.00	89.30	2,978.25	1.03	2,429.85	2,429.81	2.93	-0.96	-2.77



Phoenix Technology Services

Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	RF @ 3394.00usft (JW 4)
Site:	Patton 5 Fee	MD Reference:	RF @ 3394.00usft (JW 4)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310304	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB-v5000

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,207.00	86.90	88.90	2,982.39	2.48	2,522.74	2,522.71	1.26	-1.18	-0.43
5,301.00	88.20	88.10	2,986.40	4.94	2,616.62	2,616.60	1.62	1.38	-0.85
5,394.00	89.30	87.70	2,988.43	8.35	2,709.53	2,709.53	1.26	1.18	-0.43
5,488.00	87.90	86.90	2,990.73	12.78	2,803.40	2,803.42	1.72	-1.49	-0.85
5,581.00	87.60	87.30	2,994.38	17.48	2,896.21	2,896.26	0.54	-0.32	0.43
5,675.00	88.30	87.40	2,997.74	21.82	2,990.05	2,990.13	0.75	0.74	0.11
5,769.00	88.70	88.50	3,000.20	25.18	3,083.95	3,084.05	1.24	0.43	1.17
5,862.00	90.20	89.20	3,001.10	27.05	3,176.93	3,177.03	1.78	1.61	0.75
5,956.00	89.10	89.30	3,001.67	28.28	3,270.92	3,271.03	1.18	-1.17	0.11
6,050.00	89.20	90.10	3,003.06	28.77	3,364.90	3,365.02	0.86	0.11	0.85
6,144.00	89.00	89.80	3,004.54	28.85	3,458.89	3,459.00	0.38	-0.21	-0.32
6,238.00	88.80	89.80	3,006.35	29.18	3,552.87	3,552.99	0.21	-0.21	0.00
6,331.00	88.80	89.70	3,008.29	29.59	3,645.85	3,645.97	0.11	0.00	-0.11
6,425.00	88.40	89.80	3,010.59	30.00	3,739.82	3,739.94	0.44	-0.43	0.11
6,518.00	88.00	89.90	3,013.51	30.24	3,832.78	3,832.89	0.44	-0.43	0.11
6,612.00	89.60	90.40	3,015.48	29.99	3,926.75	3,926.86	1.78	1.70	0.53
6,706.00	89.30	90.80	3,016.38	29.01	4,020.74	4,020.85	0.53	-0.32	0.43
6,801.00	88.90	91.00	3,017.87	27.52	4,115.72	4,115.81	0.47	-0.42	0.21
6,893.00	88.60	91.30	3,019.88	25.67	4,207.68	4,207.76	0.46	-0.33	0.33
6,986.00	88.00	91.50	3,022.64	23.40	4,300.61	4,300.67	0.68	-0.65	0.22
7,080.00	88.60	90.20	3,025.43	22.01	4,394.56	4,394.61	1.52	0.64	-1.38
7,174.00	87.80	90.20	3,028.38	21.68	4,488.51	4,488.55	0.85	-0.85	0.00
7,232.00	87.70	90.40	3,030.66	21.38	4,546.46	4,546.51	0.39	-0.17	0.34
Last Phoenix MWD Survey									
7,294.00	87.70	90.40	3,033.15	20.94	4,608.41	4,608.45	0.00	0.00	0.00
Projection to TD									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,230.00	2,228.92	-60.61	5.07	Tie-on to VES Gyro
2,306.00	2,304.89	-62.62	5.07	Phoenix First MWD Survey
7,232.00	3,030.66	21.38	4,546.46	Last Phoenix MWD Survey
7,294.00	3,033.15	20.94	4,608.41	Projection to TD

Checked By: _____ Approved By: _____ Date: _____