

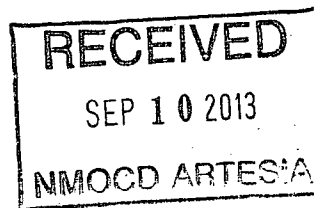
A GYRO TECHNOLOGIES INC. COMPANY

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

30-015-40211

January 28, 2013

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



Attn: Kanicia Castillo

RE: **Falabella 31 Fee No. 006H**


Please find enclosed a copy of the survey from 0.00' to 2180.00' ran on the above referenced well.

Sincerely,

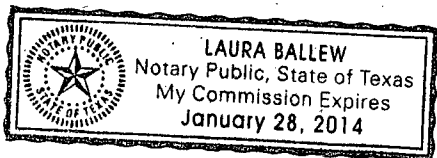

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 28th day of January, A.D., 2013, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas



Company: COG Operating LLC (Concho)

Lease/Well: Falabella 31 Fee / No. 006H



Rig Name: JW 4

State/County: New Mexico / Eddy

Latitude: 32.70, Longitude: -104.42

GRID North is 0.05 Degrees West of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 13'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: FALABELL 31 FEE #6H.ut

Minimum Curvature Method

Report Date/Time: 1/28/2013 / 16:32

Vaughn Energy Services

Midland, Texas.

432-563-5444

Surveyor: Danny Spring

Falabella 31 Fee No. 006H / API 30-015-40211



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	0.57	260.23	100.00	-0.08	-0.49	-0.08	0.50	260.23	0.57
200.00	0.90	267.44	199.99	-0.20	-1.77	-0.20	1.78	263.41	0.34
300.00	0.60	238.52	299.98	-0.51	-3.00	-0.51	3.05	260.33	0.48
400.00	0.63	241.93	399.98	-1.04	-3.93	-1.04	4.07	255.15	0.05
500.00	1.62	243.20	499.96	-1.94	-5.68	-1.94	6.00	251.15	0.98
600.00	1.87	247.40	599.91	-3.20	-8.45	-3.20	9.04	249.23	0.29
700.00	1.88	255.76	699.86	-4.24	-11.55	-4.24	12.30	249.86	0.27
800.00	1.67	258.92	799.81	-4.92	-14.57	-4.92	15.38	251.34	0.23
900.00	1.46	261.50	899.77	-5.39	-17.27	-5.39	18.09	252.66	0.23
1000.00	1.14	278.76	999.74	-5.43	-19.51	-5.43	20.25	254.46	0.50
1100.00	0.66	278.74	1099.73	-5.19	-21.06	-5.19	21.69	256.16	0.48
1200.00	0.57	277.31	1199.73	-5.04	-22.13	-5.04	22.69	257.18	0.09
1300.00	0.70	257.52	1299.72	-5.11	-23.22	-5.11	23.77	257.60	0.26
1400.00	0.42	239.72	1399.71	-5.42	-24.14	-5.42	24.74	257.33	0.33
1500.00	0.87	318.82	1499.71	-5.04	-24.96	-5.04	25.46	258.59	0.89
1600.00	0.47	274.08	1599.70	-4.44	-25.87	-4.44	26.24	260.27	0.63
1700.00	0.83	337.07	1699.70	-3.74	-26.56	-3.74	26.82	261.97	0.74
1800.00	0.99	312.98	1799.69	-2.50	-27.47	-2.50	27.58	264.81	0.41

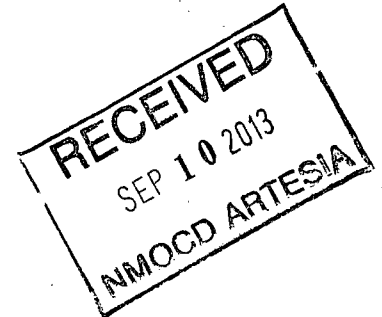
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.72	357.85	1899.68	-1.28	-28.12	-1.28	28.15	267.39	0.70
2000.00	1.06	343.99	1999.66	0.23	-28.40	0.23	28.40	270.47	0.41
2100.00	1.03	315.15	2099.65	1.76	-29.29	1.76	29.34	273.45	0.52
2180.00	0.58	300.56	2179.64	2.48	-30.15	2.48	30.25	274.71	0.61



**PHOENIX
TECHNOLOGY SERVICES**

February 20, 2013

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



Re: Concho Resources Inc.
Falabella 31 Fee #6H
Eddy Co., NM
API #30-015-40211
Job No. 1310091

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	6H	2,209	7,357	01/25/13	02/01/13	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 JOB NUMBER **1310091**

OPERATOR **COG Operating**

WELL NAME **Falabella 31 Fee #6H**

COUNTY & STATE **Eddy County, NM**

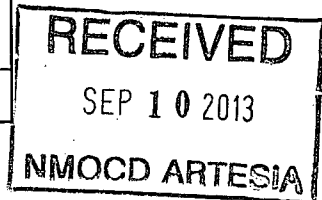
API WELL NUMBER **30-015-40211**

PROPOSED DIRECTION **359.03**

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
2,180 ft	2,179.64 ft	0.58	300.56	2.5	-30.12	Gyro

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
25-Jan-13	2,209 ft	0.8	327.8

SURVEY INSTRUMENT TYPE
PHOENIX MWD



LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
1-Feb-13	7,357 ft	92.4	0.9

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
1-Feb-13	7,449 ft	92.4	0.9

Robert D. Dillon

PRINT YOUR NAME ABOVE

Robert D. Dillon

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID	
TOTAL CORRECTION USED	7.87
DECLINATION OR GRID	Grid

2/1/2013
TODAY'S DATE

MWD SUPERVISOR 1 **Bob Dillon**
MWD SUPERVISOR 2 **Eric Burchinal**

DIRECTIONAL DRILLER 1 **Andrew Hodgkins**
DIRECTIONAL DRILLER 2 **Nathan Hodgkins**



COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Falabella 31 Fee #6H

Wellbore #1 / Job #1310091

Survey: Phoenix MWD Surveys

Phoenix Final Survey Report

01 February, 2013



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	KB @ 3441.00usft (JW 4)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3441.00usft (JW 4)
Well:	#6H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310091	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB

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	Falabella 31 Fee				
Site Position:	Northing:	617,359.30 usft	Latitude:	32° 41' 49.8761 N	
From: Map	Easting:	472,777.20 usft	Longitude:	104° 25' 18.5752 W	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.05 °

Well	#6H					
Well Position	+N/-S	0.00 usft	Northing:	617,359.30 usft	Latitude:	32° 41' 49.8761 N
	+E/-W	0.00 usft	Easting:	472,777.20 usft	Longitude:	104° 25' 18.5752 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,428.00 usft	

Wellbore	Wellbore #1 / Job #1310091				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	01/25/13	7.81	60.44	48,645

Design	Surveys (JW 4)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.03	



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	KB @ 3441.00usft (JW 4)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3441.00usft (JW 4)
Well:	#6H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310091	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB

Survey Program		Date			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	2,180.00	VES Gyro (Wellbore #1 / Job #1310091)	UNKNOWN	Unknown survey	
2,209.00	7,449.00	Phoenix MWD Surveys (Wellbore #1 / Job #1310091)	MWD	MWD - Standard	

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,180.00	0.58	300.56	1,261.36	2,179.64	2.50	-30.12	3.00	0.00	617,361.80	472,747.08
Tie In to Gyro, 2180'										
2,209.00	0.80	327.80	1,232.36	2,208.64	2.74	-30.35	3.25	1.34	617,362.04	472,746.85
First Phoenix MWD Survey										
2,302.00	1.60	354.30	1,139.38	2,301.62	4.58	-30.83	5.10	1.03	617,363.88	472,746.37
2,333.00	4.80	351.60	1,108.43	2,332.57	6.30	-31.06	6.82	10.33	617,365.60	472,746.14
2,364.00	8.30	351.30	1,077.64	2,363.36	9.79	-31.59	10.33	11.29	617,369.09	472,745.61
2,396.00	12.20	351.40	1,046.16	2,394.84	15.42	-32.44	15.97	12.19	617,374.72	472,744.76
2,427.00	15.50	349.50	1,016.06	2,424.94	22.73	-33.69	23.30	10.74	617,382.03	472,743.51
2,458.00	18.50	348.10	986.42	2,454.58	31.62	-35.46	32.22	9.77	617,390.92	472,741.74
2,489.00	21.20	347.20	957.27	2,483.73	41.90	-37.72	42.54	8.77	617,401.20	472,739.48
2,520.00	24.20	347.90	928.67	2,512.33	53.58	-40.29	54.26	9.72	617,412.88	472,736.91
2,552.00	27.30	348.30	899.85	2,541.15	67.19	-43.15	67.91	9.70	617,426.49	472,734.05
2,583.00	30.40	348.50	872.70	2,568.30	81.84	-46.16	82.61	10.00	617,441.14	472,731.04
2,614.00	33.40	349.10	846.39	2,594.61	97.91	-49.34	98.73	9.73	617,457.21	472,727.86
2,645.00	36.30	350.60	820.95	2,620.05	115.34	-52.45	116.21	9.75	617,474.64	472,724.75
2,676.00	39.30	352.20	796.46	2,644.54	134.13	-55.28	135.04	10.18	617,493.43	472,721.92
2,708.00	42.50	355.00	772.27	2,668.73	154.94	-57.60	155.89	11.52	617,514.24	472,719.60
2,739.00	45.50	358.00	749.97	2,691.03	176.43	-58.90	177.40	11.78	617,535.73	472,718.30
2,770.00	48.90	359.20	728.91	2,712.09	199.16	-59.45	200.14	11.33	617,558.46	472,717.75
2,801.00	51.40	0.40	709.05	2,731.95	222.96	-59.53	223.94	8.59	617,582.26	472,717.67
2,832.00	54.10	0.80	690.29	2,750.71	247.63	-59.27	248.60	8.77	617,606.93	472,717.93



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	KB @ 3441.00usft (JW 4)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3441.00usft (JW 4)
Well:	#6H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310091	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,863.00	57.00	0.80	672.75	2,768.25	273.19	-58.91	274.15	9.35	617,632.49	472,718.29	
2,895.00	60.40	0.60	656.13	2,784.87	300.53	-58.58	301.48	10.64	617,659.83	472,718.62	
2,926.00	63.50	0.10	641.55	2,799.45	327.88	-58.41	328.82	10.10	617,687.18	472,718.79	
2,957.00	66.10	358.80	628.36	2,812.64	355.93	-58.68	356.87	9.21	617,715.23	472,718.52	
2,988.00	69.40	357.80	616.62	2,824.38	384.60	-59.54	385.55	11.06	617,743.90	472,717.66	
3,020.00	73.10	357.10	606.33	2,834.67	414.87	-60.89	415.84	11.75	617,774.17	472,716.31	
3,051.00	76.50	357.10	598.21	2,842.79	444.74	-62.40	445.73	10.97	617,804.04	472,714.80	
3,082.00	79.40	358.00	591.74	2,849.26	475.03	-63.70	476.04	9.78	617,834.33	472,713.50	
3,113.00	82.00	359.20	586.73	2,854.27	505.61	-64.44	506.63	9.22	617,864.91	472,712.76	
3,144.00	84.90	0.10	583.19	2,857.81	536.40	-64.63	537.42	9.79	617,895.70	472,712.57	
3,175.00	87.70	0.80	581.19	2,859.81	567.33	-64.39	568.34	9.31	617,926.63	472,712.81	
3,207.00	90.10	1.00	580.58	2,860.42	599.32	-63.88	600.31	7.53	617,958.62	472,713.32	
3,238.00	91.00	1.10	580.87	2,860.13	630.31	-63.32	631.29	2.92	617,989.61	472,713.88	
3,331.00	91.40	358.70	582.82	2,858.18	723.28	-63.48	724.26	2.62	618,082.58	472,713.72	
3,425.00	91.30	358.80	585.04	2,855.96	817.24	-65.53	818.23	0.15	618,176.54	472,711.67	
3,519.00	91.40	359.00	587.25	2,853.75	911.19	-67.33	912.20	0.24	618,270.49	472,709.87	
3,613.00	93.00	359.30	590.86	2,850.14	1,005.11	-68.73	1,006.13	1.73	618,364.41	472,708.47	
3,706.00	93.00	0.00	595.73	2,845.27	1,097.98	-69.29	1,099.00	0.75	618,457.28	472,707.91	
3,800.00	92.90	359.70	600.56	2,840.44	1,191.86	-69.54	1,192.86	0.34	618,551.16	472,707.66	
3,893.00	91.50	358.90	604.13	2,836.87	1,284.78	-70.67	1,285.79	1.73	618,644.08	472,706.53	
3,986.00	92.90	358.80	607.70	2,833.30	1,377.69	-72.54	1,378.72	1.51	618,736.99	472,704.66	
4,080.00	94.50	357.90	613.77	2,827.23	1,471.45	-75.24	1,472.51	1.95	618,830.75	472,701.96	
4,173.00	94.60	358.50	621.15	2,819.85	1,564.11	-78.15	1,565.21	0.65	618,923.41	472,699.05	
4,267.00	94.60	359.00	628.69	2,812.31	1,657.78	-80.20	1,658.90	0.53	619,017.08	472,697.00	
4,361.00	94.40	359.20	636.06	2,804.94	1,751.48	-81.67	1,752.61	0.30	619,110.78	472,695.53	
4,454.00	95.20	358.40	643.84	2,797.16	1,844.13	-83.61	1,845.29	1.21	619,203.43	472,693.59	
4,548.00	95.00	358.40	652.20	2,788.80	1,937.73	-86.22	1,938.91	0.21	619,297.03	472,690.98	



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	KB @ 3441.00usft (JW 4)
Site:	Falabella 31 Fee	MD Reference:	KB @ 3441.00usft (JW 4)
Well:	#6H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310091	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V.Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)		
4,641.00	94.90	358.40	660.22	2,780.78	2,030.34	-88.81	2,031.55	0.11	619,389.64	472,688.39		
4,735.00	95.00	358.80	668.34	2,772.66	2,123.96	-91.10	2,125.20	0.44	619,483.26	472,686.10		
4,828.00	94.10	0.40	675.71	2,765.29	2,216.66	-91.74	2,217.90	1.97	619,575.96	472,685.46		
4,922.00	92.40	1.30	681.04	2,759.96	2,310.50	-90.35	2,311.70	2.05	619,669.80	472,686.85		
5,016.00	92.30	1.80	684.90	2,756.10	2,404.38	-87.81	2,405.53	0.54	619,763.68	472,689.39		
5,109.00	92.30	0.80	688.63	2,752.37	2,497.28	-85.70	2,498.38	1.07	619,856.58	472,691.50		
5,203.00	92.70	359.30	692.73	2,748.27	2,591.19	-85.62	2,592.27	1.65	619,950.49	472,691.58		
5,297.00	94.30	358.20	698.47	2,742.53	2,684.99	-87.67	2,686.09	2.06	620,044.29	472,689.53		
5,390.00	94.70	357.90	705.77	2,735.23	2,777.65	-90.82	2,778.79	0.54	620,136.95	472,686.38		
5,484.00	93.80	359.00	712.73	2,728.27	2,871.35	-93.36	2,872.52	1.51	620,230.65	472,683.84		
5,578.00	93.40	0.60	718.63	2,722.37	2,965.16	-93.68	2,966.33	1.75	620,324.46	472,683.52		
5,672.00	93.40	1.10	724.21	2,716.79	3,058.99	-92.29	3,060.11	0.53	620,418.29	472,684.91		
5,765.00	93.40	1.50	729.72	2,711.28	3,151.80	-90.18	3,152.88	0.43	620,511.10	472,687.02		
5,859.00	92.70	0.70	734.73	2,706.27	3,245.65	-88.38	3,246.68	1.13	620,604.95	472,688.82		
5,953.00	92.50	358.80	738.99	2,702.01	3,339.55	-88.79	3,340.57	2.03	620,698.85	472,688.41		
6,046.00	92.10	359.10	742.72	2,698.28	3,432.46	-90.50	3,433.50	0.54	620,791.76	472,686.70		
6,140.00	91.70	359.40	745.84	2,695.16	3,526.40	-91.73	3,527.44	0.53	620,885.70	472,685.47		
6,234.00	91.90	358.70	748.79	2,692.21	3,620.34	-93.28	3,621.40	0.77	620,979.64	472,683.92		
6,327.00	93.30	358.40	753.01	2,687.99	3,713.21	-95.63	3,714.30	1.54	621,072.51	472,681.57		
6,421.00	93.10	359.00	758.26	2,682.74	3,807.04	-97.76	3,808.15	0.67	621,166.34	472,679.44		
6,515.00	92.50	358.50	762.85	2,678.15	3,900.90	-99.81	3,902.03	0.83	621,260.20	472,677.39		
6,609.00	92.30	358.90	766.79	2,674.21	3,994.80	-101.94	3,995.95	0.48	621,354.10	472,675.26		
6,702.00	92.00	359.00	770.28	2,670.72	4,087.71	-103.64	4,088.88	0.34	621,447.01	472,673.56		
6,796.00	92.60	0.00	774.05	2,666.95	4,181.63	-104.46	4,182.80	1.24	621,540.93	472,672.74		
6,889.00	93.20	0.10	778.75	2,662.25	4,274.51	-104.38	4,275.67	0.65	621,633.81	472,672.82		
6,983.00	93.10	0.00	783.92	2,657.08	4,368.37	-104.30	4,369.51	0.15	621,727.67	472,672.90		
7,076.00	93.30	0.20	789.11	2,651.89	4,461.23	-104.14	4,462.35	0.30	621,820.53	472,673.06		



Phoenix Technology Services
Phoenix Final Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	KB @ 3441.00usft (JW 4)
Site:	Falabellä 31 Fee	MD Reference:	KB @ 3441.00usft (JW 4)
Well:	#6H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310091	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (JW 4)	Database:	GCR DB

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
7,169.00	93.40	0.70	794.54	2,646.46	4,554.06	-103.41	4,555.16	0.55	621,913.36	472,673.79
7,263.00	92.80	0.80	799.63	2,641.37	4,647.92	-102.18	4,648.98	0.65	622,007.22	472,675.02
7,357.00	92.40	0.90	803.89	2,637.11	4,741.81	-100.79	4,742.84	0.44	622,101.11	472,676.41
Curret MWD Survey										
7,449.00	92.40	0.90	807.74	2,633.26	4,833.72	-99.34	4,834.71	0.00	622,193.02	472,677.86
Projection to Bit										

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,180.00	2,179.64	2.50	-30.12	Tie In to Gyro, 2180'
2,209.00	2,208.64	2.74	-30.35	First Phoenix MWD Survey
7,357.00	2,637.11	4,741.81	-100.79	Curret MWD Survey
7,449.00	2,633.26	4,833.72	-99.34	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____