



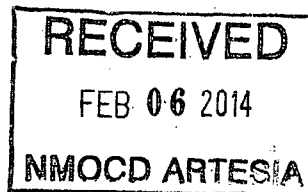
A GYRO TECHNOLOGIES INC. COMPANY

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

15-39625

November 1, 2013

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



Attn: Kanicia Castillo

RE: Arabian 6 Fee No. 006H

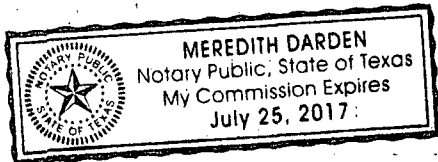
Please find enclosed a copy of the survey from 0.00' to 2245.00' ran on the above referenced well.

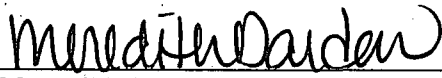
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 1 day of November A.D., 2013, by Keith Havelka.




Meredith Darden
Notary Public, State of Texas



Company: COG Operating, LLC (Concho)

Lease/Well: Arabian 6 Fee /No. 006H

Location: Sec6 T19S R26E

Rig Name: Silver Oak #3

State/County: New Mexico/Eddy

Latitude: 32.68, Longitude: -104.42

GRID North is 0.05 Degrees West of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB= 17 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: arabian 5 fee #6h-de_01.ut

Minimum Curvature Method

Report Date/Time: 11/1/2013 / 15:20

Vaughn Energy Services

West, Texas

432-563-5444

Surveyor: Chris Bankson

Arabian 6 Fee No. 006H / API 30-015-39625

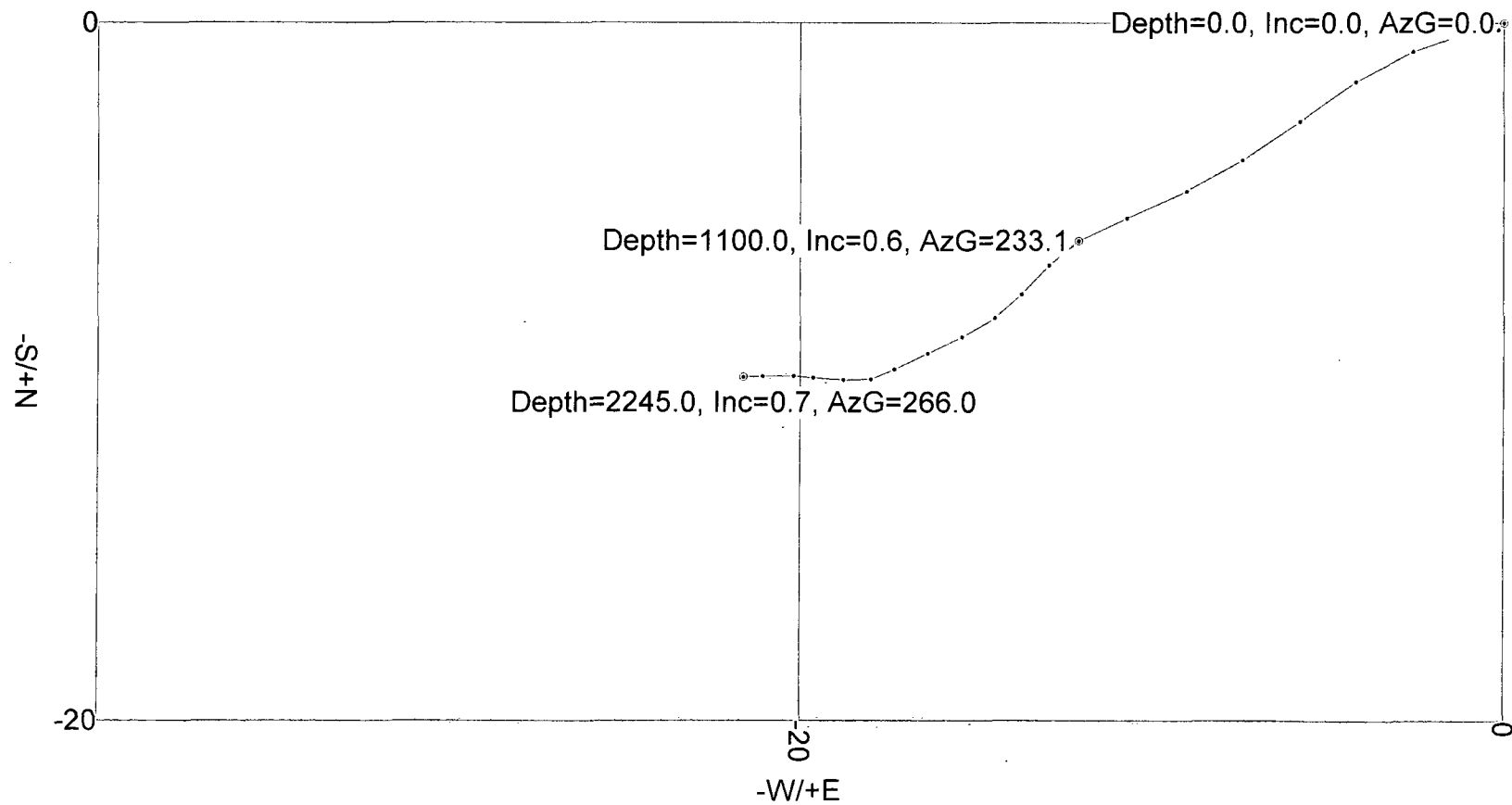


Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.29	221.05	100.00	-0.19	-0.16	-0.19	0.25	221.05	0.29
200.00	0.10	357.05	200.00	-0.29	-0.33	-0.29	0.44	228.92	0.37
300.00	0.21	264.06	300.00	-0.22	-0.52	-0.22	0.57	246.93	0.24
400.00	0.64	258.45	400.00	-0.35	-1.25	-0.35	1.30	254.26	0.43
500.00	1.01	246.41	499.99	-0.82	-2.61	-0.82	2.73	252.60	0.40
600.00	1.09	237.63	599.97	-1.68	-4.21	-1.68	4.53	248.30	0.18
700.00	1.17	231.54	699.95	-2.82	-5.81	-2.82	6.45	244.13	0.14
800.00	1.11	240.59	799.93	-3.92	-7.44	-3.92	8.41	242.22	0.19
900.00	0.98	240.66	899.91	-4.82	-9.03	-4.82	10.23	241.93	0.13
1000.00	1.17	249.92	999.90	-5.58	-10.73	-5.58	12.10	242.51	0.26
1100.00	0.57	233.15	1099.88	-6.23	-12.09	-6.23	13.60	242.72	0.64
1200.00	0.68	226.80	1199.88	-6.94	-12.92	-6.94	14.67	241.77	0.12
1300.00	0.61	219.10	1299.87	-7.76	-13.69	-7.76	15.73	240.46	0.11
1400.00	0.60	238.66	1399.87	-8.44	-14.47	-8.44	16.75	239.74	0.21
1500.00	0.63	240.65	1499.86	-8.98	-15.40	-8.98	17.83	239.74	0.04
1600.00	0.61	247.50	1599.85	-9.46	-16.37	-9.46	18.91	239.98	0.08
1700.00	0.59	240.52	1699.85	-9.91	-17.31	-9.91	19.95	240.19	0.08
1800.00	0.25	261.11	1799.85	-10.20	-17.97	-10.20	20.67	240.42	0.36

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	0.65	271.97	1899.84	-10.22	-18.76	-10.22	21.36	241.43	0.40
2000.00	0.35	278.86	1999.84	-10.15	-19.63	-10.15	22.10	242.66	0.31
2100.00	0.30	268.89	2099.84	-10.11	-20.19	-10.11	22.58	243.40	0.07
2200.00	0.70	270.17	2199.83	-10.11	-21.06	-10.11	23.36	244.35	0.40
2245.00	0.70	266.00	2244.83	-10.13	-21.61	-10.13	23.87	244.88	0.11



Vaughn Energy Services
West, Texas
432-563-5444
Surveyor: Chris Bankson
Arabian 6 Fee No. 006H / API 30-015-39625





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

October 31, 2013

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

RE: Arabian 6 Fee #6H
183' FSL & 2267' FWL
Sec. 6, T19S, R26E
Eddy County, New Mexico

Dear Sir,

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

Very truly yours,

A handwritten signature in black ink, appearing to read "Graham", with a long horizontal line extending to the right.

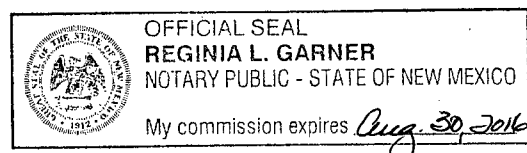
Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 31st day of October, 2013.

A handwritten signature in black ink, appearing to read "Regina L. Garner", with a long horizontal line extending to the right.

Notary Public



ARABIAN 6 FEE 6H

Date	Depth	Deviation	Direction
10/20/2013	146	0.20	0.00
10/20/2013	331	0.30	0.00
10/20/2013	513	0.60	0.00
10/20/2013	693	1.30	0.00
10/20/2013	846	1.40	0.00
10/21/2013	970	0.90	0.00
10/21/2013	1159	0.80	0.00
10/22/2013	1312	0.70	0.00
10/22/2013	1812	0.10	0.00
10/24/2013	2287	0.50	268.50
10/24/2013	2319	0.80	256.70
10/24/2013	2350	0.50	328.00
10/24/2013	2380	5.00	2.00
10/24/2013	2411	8.80	4.30
10/24/2013	2442	11.80	7.90
10/24/2013	2474	13.80	14.90
10/24/2013	2505	17.60	15.10
10/24/2013	2599	29.90	14.40
10/24/2013	2630	32.80	11.40
10/24/2013	2661	33.50	6.00
10/24/2013	2693	40.50	4.00
10/24/2013	2723	45.30	0.20
10/25/2013	2817	50.60	356.10
10/25/2013	2848	53.70	355.30
10/25/2013	2879	57.20	254.50
10/25/2013	2911	59.70	353.70
10/25/2013	2942	62.20	352.90
10/25/2013	2973	65.10	352.50
10/25/2013	3036	71.10	352.40
10/25/2013	3067	73.60	352.20
10/25/2013	3098	75.50	352.70
10/25/2013	3130	77.10	352.70
10/25/2013	3160	80.00	354.10
10/25/2013	3191	82.30	355.00
10/25/2013	3254	87.30	357.00
10/25/2013	3348	92.40	359.70
10/26/2013	3398	92.30	359.30
10/26/2013	3492	90.90	0.20
10/26/2013	3585	91.30	0.10
10/26/2013	3679	91.40	359.50
10/26/2013	3773	91.30	358.60
10/26/2013	3867	90.70	359.60
10/26/2013	3960	90.10	0.60

Date	Depth	Deviation	Direction
10/26/2013	4054	90.20	0.70
10/26/2013	4147	90.10	0.70
10/26/2013	4240	90.20	0.60
10/26/2013	4335	89.80	0.60
10/26/2013	4428	89.80	0.60
10/27/2013	4522	89.70	1.00
10/27/2013	4616	89.40	0.80
10/27/2013	4710	88.90	0.70
10/27/2013	4803	89.80	0.60
10/27/2013	4897	89.80	0.40
10/27/2013	4990	89.70	359.90
10/27/2013	5083	89.80	360.00
10/27/2013	5176	90.00	359.70
10/27/2013	5269	91.00	358.90
10/27/2013	5364	91.20	358.60
10/27/2013	5457	91.30	359.10
10/27/2013	5551	91.20	359.10
10/28/2013	5644	91.20	359.20
10/28/2013	5738	91.20	359.10
10/28/2013	5832	90.90	358.80
10/28/2013	5925	90.90	358.80
10/28/2013	6019	91.00	358.50
10/28/2013	6112	91.20	358.40
10/28/2013	6206	91.30	358.30
10/28/2013	6300	91.30	358.10
10/28/2013	6393	91.30	358.10
10/28/2013	6487	91.70	358.00
10/28/2013	6580	90.40	359.10
10/28/2013	6673	90.70	358.90
10/29/2013	7141	90.60	358.70
10/29/2013	7235	88.90	359.60
10/29/2013	7328	89.20	359.30

COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Arabian 6 Fee

#6H

WB1/Job #1311414

Survey: Phoenix MWD Survey

Phoenix Final Survey Report

29 October, 2013

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 @ 3390.00usft (Silver Oak 3)
Site:	Arabian 6 Fee	MD Reference:	KB @ 3390.00usft (Silver Oak 3)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	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:	Arabian 6 Fee		
Site Position:	Northing:	612,084.20 usft	Latitude: 32° 40' 57.67029 N
From: Map	Easting:	472,131.70 usft	Longitude: 104° 25' 26.07641 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: 612,123.90 usft
	+E/-W	0.00 usft	Easting: 472,783.80 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
			Ground Level: 3,372.00 usft

Wellbore:	WB1/Job #1311414		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	10/17/13	7.72
			Dip Angle (°)
			60.41
			Field Strength (nT)
			48,564

Design:	Surveys (Silver Oak 3)		
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 (°)
			359.09

Survey Program	Date	10/29/13			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	2,245.00	VES Gyro (WB1/Job #1311414)	VES-ISCWSA-GYRO-3	Biaxial Semi-Cont. Gyro	
2,287.00	7,400.00	Phoenix MWD Survey (WB1/Job #131141)	MWD	MWD - Standard	

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
2,245.00	0.70	266.00	2,244.83	-10.13	-21.61	-9.79	0.00	
Tie-on to Gyro								
2,287.00	0.50	268.50	2,286.83	-10.15	-22.05	-9.80	0.48	
First Phoenix MWD Survey								
2,319.00	0.80	256.70	2,318.83	-10.21	-22.41	-9.85	1.02	
2,350.00	0.50	328.00	2,349.82	-10.14	-22.69	-9.78	2.57	
2,380.00	5.00	2.00	2,379.78	-8.72	-22.71	-8.36	15.31	
2,411.00	8.80	4.30	2,410.55	-5.01	-22.49	-4.65	12.29	
2,443.00	11.80	7.90	2,442.03	0.67	-21.85	1.02	9.58	
2,474.00	13.80	14.90	2,472.26	7.39	-20.47	7.71	8.15	
2,505.00	17.60	15.10	2,502.10	15.49	-18.29	15.78	12.26	

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 @ 3390.00usft (Silver Oak 3)
Site:	Arabian 6 Fee	MD Reference:	KB @ 3390.00usft (Silver Oak 3)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	GCR DB

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,537.00	21.50	15.20	2,532.25	25.82	-15.50	26.07	12.19
2,568.00	25.80	15.60	2,560.64	37.81	-12.19	38.00	13.88
2,599.00	29.90	14.40	2,588.04	51.80	-8.45	51.92	13.35
2,630.00	32.80	11.40	2,614.52	67.51	-4.87	67.58	10.62
2,661.00	33.50	6.00	2,640.48	84.26	-2.32	84.28	9.79
2,693.00	36.80	5.10	2,666.64	102.59	-0.54	102.59	10.44
2,723.00	40.50	4.00	2,690.06	121.27	0.94	121.24	12.54
2,754.00	45.30	0.20	2,712.77	142.34	1.68	142.30	17.58
2,786.00	48.40	357.40	2,734.65	165.67	1.18	165.64	11.60
2,817.00	50.60	356.10	2,754.79	189.21	-0.17	189.19	7.78
2,848.00	53.70	355.30	2,773.81	213.61	-2.00	213.62	10.21
2,879.00	57.20	354.50	2,791.38	239.04	-4.28	239.08	11.49
2,911.00	59.70	353.70	2,808.13	266.16	-7.08	266.24	8.10
2,942.00	62.20	352.90	2,823.18	293.07	-10.25	293.20	8.37
2,973.00	65.10	352.50	2,836.94	320.63	-13.78	320.80	9.43
3,004.00	68.20	352.80	2,849.22	348.85	-17.42	349.08	10.04
3,035.00	71.10	352.60	2,860.00	377.68	-21.11	377.96	9.37
3,066.00	73.60	352.20	2,869.40	406.95	-25.02	407.30	8.16
3,098.00	75.50	352.20	2,877.92	437.51	-29.20	437.92	5.94
3,129.00	77.10	352.70	2,885.27	467.37	-33.16	467.83	5.39
3,160.00	80.00	354.10	2,891.42	497.54	-36.65	498.06	10.35
3,191.00	82.30	355.00	2,896.19	528.03	-39.56	528.60	7.95
3,223.00	84.20	355.90	2,899.95	559.71	-42.08	560.31	6.56
3,254.00	87.30	357.00	2,902.25	590.56	-43.99	591.19	10.61
3,348.00	92.40	359.70	2,902.49	684.48	-46.70	685.14	6.14
3,398.00	92.30	359.30	2,900.44	734.44	-47.13	735.10	0.82
3,492.00	90.90	0.20	2,897.82	828.40	-47.54	829.05	1.77
3,585.00	91.30	0.10	2,896.03	921.38	-47.30	922.02	0.44
3,679.00	91.40	359.50	2,893.82	1,015.35	-47.63	1,015.98	0.65
3,773.00	91.30	358.60	2,891.60	1,109.31	-49.18	1,109.95	0.96
3,866.00	90.70	359.60	2,889.98	1,202.29	-50.65	1,202.94	1.25
3,960.00	89.90	0.60	2,889.49	1,296.28	-50.48	1,296.92	1.36
4,054.00	90.20	0.70	2,889.41	1,390.28	-49.41	1,390.89	0.34
4,147.00	90.10	0.70	2,889.16	1,483.27	-48.28	1,483.85	0.11
4,241.00	90.20	0.60	2,888.92	1,577.26	-47.21	1,577.81	0.15
4,335.00	89.80	0.60	2,888.92	1,671.26	-46.23	1,671.78	0.43
4,428.00	89.80	0.60	2,889.24	1,764.25	-45.25	1,764.75	0.00
4,522.00	89.70	1.00	2,889.65	1,858.24	-43.94	1,858.71	0.44
4,616.00	89.40	0.80	2,890.39	1,952.23	-42.46	1,952.66	0.38
4,710.00	88.90	0.70	2,891.78	2,046.21	-41.23	2,046.61	0.54
4,803.00	89.80	0.60	2,892.84	2,139.20	-40.18	2,139.56	0.97
4,897.00	89.80	0.40	2,893.17	2,233.19	-39.36	2,233.53	0.21
4,990.00	89.70	359.90	2,893.57	2,326.19	-39.12	2,326.52	0.55
5,083.00	89.80	0.00	2,893.98	2,419.19	-39.20	2,419.51	0.15

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 @ 3390.00usft (Silver Oak 3)
Site:	Arabian 6 Fee	MD Reference:	KB @ 3390.00usft (Silver Oak 3)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 3)	Database:	GCR DB

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
5,176.00	90.00	359.70	2,894.14	2,512.19	-39.44	2,512.50	0.39	
5,269.00	91.00	358.90	2,893.33	2,605.18	-40.58	2,605.49	1.38	
5,364.00	91.20	358.60	2,891.51	2,700.14	-42.65	2,700.47	0.38	
5,457.00	91.30	359.10	2,889.48	2,793.09	-44.51	2,793.45	0.55	
5,551.00	91.20	359.10	2,887.43	2,887.06	-45.99	2,887.43	0.11	
5,644.00	91.20	359.20	2,885.48	2,980.03	-47.37	2,980.41	0.11	
5,738.00	91.20	359.10	2,883.51	3,074.00	-48.76	3,074.39	0.11	
5,832.00	90.90	358.90	2,881.79	3,167.97	-50.40	3,168.37	0.38	
5,925.00	90.90	358.80	2,880.33	3,260.94	-52.27	3,261.36	0.11	
6,019.00	91.00	358.50	2,878.77	3,354.90	-54.49	3,355.34	0.34	
6,112.00	91.20	358.40	2,876.98	3,447.85	-57.00	3,448.32	0.24	
6,206.00	91.30	358.30	2,874.93	3,541.79	-59.71	3,542.29	0.15	
6,299.00	91.30	358.10	2,872.82	3,634.72	-62.63	3,635.25	0.21	
6,393.00	91.30	358.10	2,870.69	3,728.64	-65.74	3,729.21	0.00	
6,487.00	91.70	358.00	2,868.23	3,822.55	-68.94	3,823.17	0.44	
6,580.00	90.40	359.10	2,866.52	3,915.51	-71.29	3,916.14	1.83	
6,673.00	90.70	358.90	2,865.63	4,008.49	-72.92	4,009.14	0.39	
6,767.00	90.90	358.60	2,864.32	4,102.46	-74.97	4,103.13	0.38	
6,860.00	89.40	359.70	2,864.08	4,195.44	-76.35	4,196.12	2.00	
6,954.00	89.80	359.50	2,864.73	4,289.44	-77.00	4,290.12	0.48	
7,047.00	90.20	359.30	2,864.73	4,382.43	-77.98	4,383.12	0.48	
7,141.00	90.60	358.70	2,864.08	4,476.41	-79.62	4,477.11	0.77	
7,234.00	88.90	359.60	2,864.48	4,569.40	-81.00	4,570.11	2.07	
7,328.00	89.20	359.30	2,866.04	4,663.38	-81.90	4,664.09	0.45	
Last Phoenix MWD Survey								
7,400.00	89.20	359.30	2,867.05	4,735.37	-82.78	4,736.09	0.00	
Projection to TD								

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,245.00	2,244.83	-10.13	-21.61	Tie-on to Gyro
2,287.00	2,286.83	-10.15	-22.05	First Phoenix MWD Survey
7,328.00	2,866.04	4,663.38	-81.90	Last Phoenix MWD Survey
7,400.00	2,867.05	4,735.37	-82.78	Projection to TD

Checked By: _____ Approved By: _____ Date: _____