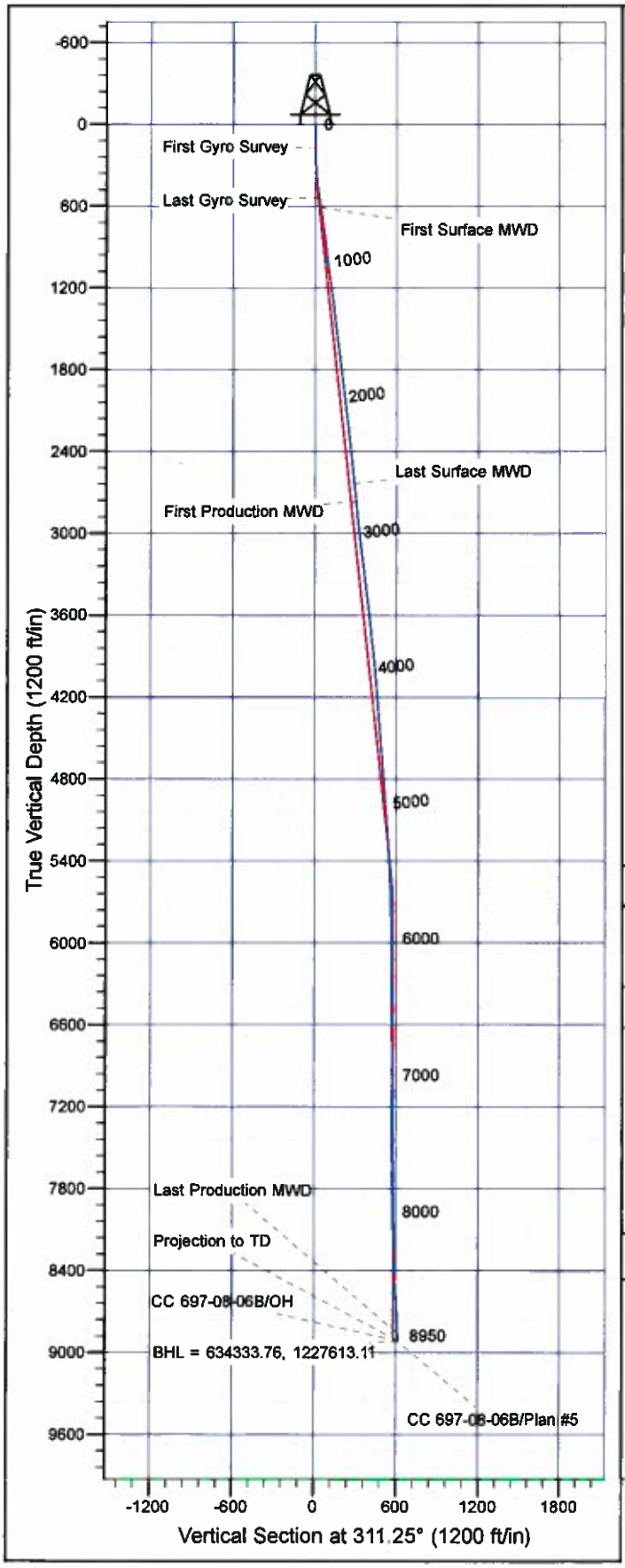
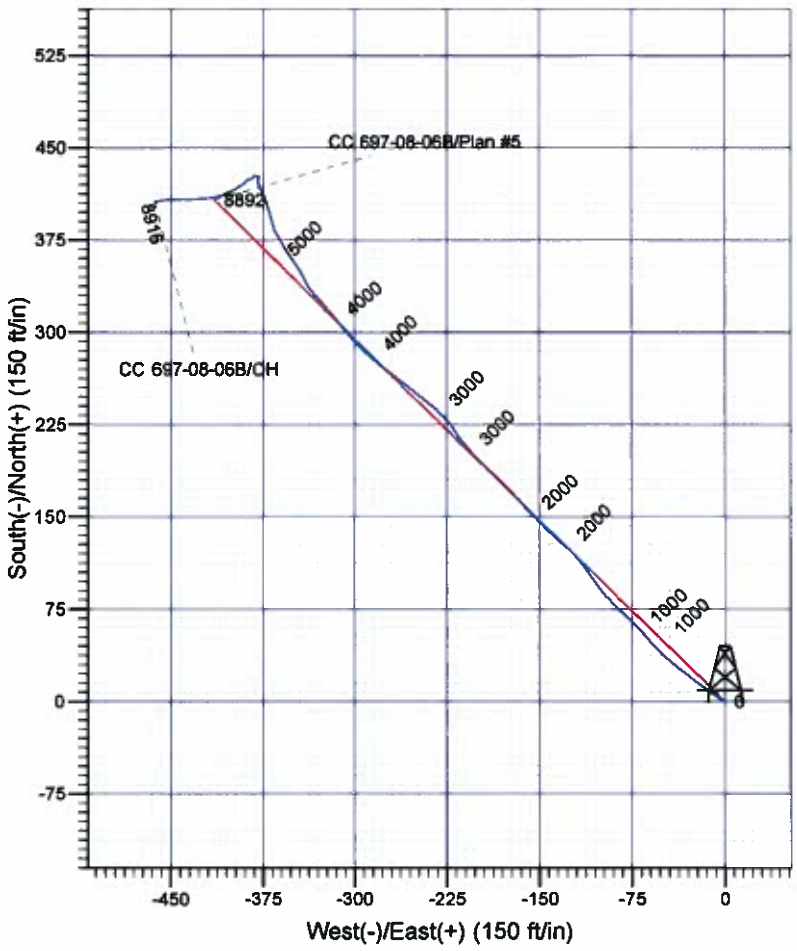
Scientific Drilling
Rocky Mountain Operations

Company:	OXY USA RMAT
Project:	Garfield County, CO NAD27
Site:	Cascade Creek 608-41 Pad
Well:	CC 697-08-06B
Wellbore:	OH
Design:	OH

OXY





Well Details: CC 697-08-06B

TVD Reference: GL 8407' & RKB 30' @ 8437.00ft (H&P) Ground Level: 8407.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	633913.99	1228063.60	39° 32' 31.131 N	108° 14' 15.180 W	H

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well CC 697-08-06B - Slot H, True North
Vertical (TVD) Reference: GL 8407' & RKB 30' @ 8437.00ft (H&P)
Section (VS) Reference: Slot - H(0.00N, 0.00E)
Measured Depth Reference: GL 8407' & RKB 30' @ 8437.00ft (H&P)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Garfield County, CO NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Colorado Central 502

System Datum: Mean Sea Level

Plan: OH

11:54, April 14 2011
Created By: Janie Cooke

OXY USA RMAT

Garfield County, CO NAD27
Cascade Creek 608-41 Pad
CC 697-08-06B - Slot H

OH

Design: OH

Standard Survey Report

14 April, 2011

Scientific Drilling International, Inc.

Survey Report

Company:	OXY USA RMAT	**Local Co-ordinate Reference:**	Well CC 697-08-06B - Slot H
Project:	Garfield County, CO NAD27	**TVD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Site:	Cascade Creek 608-41 Pad	**MD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Well:	CC 697-08-06B	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM-R5000-JanieCooke-Local

Project	Garfield County, CO NAD27		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site	Cascade Creek 608-41 Pad, SEction 8 T6S R97W				
Site Position:		**Northing:**	633,966.95 usft	**Latitude:**	39° 32' 31.685 N
From:	Map	**Easting:**	1,228,168.67 usft	**Longitude:**	108° 14' 13.859 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-1.73 °

Well	CC 697-08-06B - Slot H,					
Well Position	**+N/-S**	0.00 ft	**Northing:**	633,913.99 usft	**Latitude:**	39° 32' 31.131 N
	+E/-W	0.00 ft	**Easting:**	1,228,063.60 usft	**Longitude:**	108° 14' 15.180 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	8,407.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2005-10	10/15/2008	10.79	65.81	52,516

Design	OH				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	311.25	

Survey Program **Date** 4/14/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
175.00	542.00	Survey #1 - Gyro MWD (OH)	Gyro	
615.00	2,654.00	Survey #2 - Surface MWD (OH)	MWD-SDI	MWD - Standard |SCWSA
2,786.00	8,950.00	Survey #3 - Production MWD (OH)	MWD-SDI	MWD - Standard |SCWSA

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	0.88	287.23	174.99	0.40	-1.28	1.23	0.50	0.50	0.00
First Gyro Survey									
267.00	2.02	307.71	266.96	1.60	-3.24	3.49	1.34	1.24	22.26
359.00	4.13	301.64	358.83	4.33	-7.34	8.38	2.32	2.29	-6.60
451.00	6.86	306.56	450.39	9.34	-14.58	17.12	3.01	2.97	5.35
542.00	9.24	307.18	540.49	16.99	-24.77	29.83	2.62	2.62	0.68
Last Gyro Survey									

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Survey Report

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Project:	Garfield County, CO NAD27	**TVD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Site:	Cascade Creek 608-41 Pad	**MD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Well:	CC 697-08-06B	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM-R5000-JanieCooke-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
615.00	7.74	309.24	612.69	23.65	-33.25	40.59	2.10	-2.05	2.82
First Surface MWD									
707.00	8.79	309.42	703.73	32.03	-43.47	53.80	1.14	1.14	0.20
801.00	7.83	314.96	796.75	41.11	-53.55	67.37	1.33	-1.02	5.89
895.00	6.24	321.02	890.04	49.61	-61.30	78.80	1.86	-1.69	6.45
990.00	6.77	317.77	984.42	57.77	-68.31	89.45	0.68	0.56	-3.42
1,084.00	7.65	315.48	1,077.68	66.33	-76.42	101.19	0.98	0.94	-2.44
1,179.00	8.71	312.49	1,171.71	75.70	-86.16	114.69	1.20	1.12	-3.15
1,274.00	8.71	317.86	1,265.62	85.89	-96.29	129.03	0.86	0.00	5.65
1,368.00	6.51	325.15	1,358.79	95.55	-104.11	141.27	2.55	-2.34	7.76
1,463.00	6.60	324.18	1,453.17	104.39	-110.38	151.82	0.15	0.09	-1.02
1,557.00	7.39	321.72	1,546.47	113.52	-117.29	163.03	0.90	0.84	-2.62
1,652.00	7.12	313.72	1,640.71	122.38	-125.33	174.92	1.10	-0.28	-8.42
1,746.00	7.12	309.15	1,733.98	130.09	-134.06	186.56	0.60	0.00	-4.86
1,841.00	7.03	316.10	1,828.26	137.99	-142.66	198.24	0.91	-0.09	7.32
1,935.00	6.42	315.13	1,921.62	145.86	-150.35	209.22	0.66	-0.65	-1.03
2,030.00	7.56	317.68	2,015.91	154.25	-158.31	220.72	1.24	1.20	2.68
2,125.00	7.30	319.09	2,110.11	163.43	-166.47	232.91	0.33	-0.27	1.48
2,219.00	6.60	315.75	2,203.42	171.81	-174.15	244.22	0.86	-0.74	-3.55
2,313.00	6.51	313.20	2,296.81	179.33	-181.80	254.93	0.32	-0.10	-2.71
2,408.00	6.24	313.11	2,391.22	186.55	-189.50	265.47	0.28	-0.28	-0.09
2,502.00	5.98	315.48	2,484.68	193.53	-196.66	275.46	0.39	-0.28	2.52
2,597.00	5.98	317.24	2,579.17	200.69	-203.49	285.32	0.19	0.00	1.85
2,654.00	6.07	317.94	2,635.85	205.11	-207.52	291.26	0.20	0.16	1.23
Last Surface MWD									
2,786.00	5.19	325.15	2,767.22	215.19	-215.61	303.99	0.85	-0.67	5.46
First Production MWD									
2,880.00	5.89	327.08	2,860.78	222.73	-220.66	312.76	0.77	0.74	2.05
2,975.00	7.03	316.27	2,955.18	231.02	-227.33	323.24	1.75	1.20	-11.38
3,069.00	6.42	309.77	3,048.53	238.54	-235.34	334.22	1.04	-0.65	-6.91
3,164.00	5.98	310.38	3,142.97	245.14	-243.20	344.48	0.47	-0.46	0.64
3,258.00	7.65	310.03	3,236.31	252.34	-251.72	355.63	1.78	1.78	-0.37
3,353.00	7.56	305.73	3,330.47	260.06	-261.63	368.17	0.61	-0.09	-4.53
3,447.00	7.21	304.94	3,423.69	267.05	-271.49	380.19	0.39	-0.37	-0.84
3,542.00	6.95	312.49	3,517.97	274.34	-280.61	391.86	1.02	-0.27	7.95
3,636.00	6.24	311.44	3,611.35	281.56	-288.64	402.66	0.77	-0.76	-1.12
3,731.00	5.45	310.91	3,705.85	287.94	-295.92	412.33	0.83	-0.83	-0.56
3,825.00	6.51	322.60	3,799.34	295.09	-302.53	422.02	1.71	1.13	12.44
3,920.00	6.16	318.91	3,893.76	303.21	-309.15	432.35	0.56	-0.37	-3.88
4,014.00	5.45	320.40	3,987.28	310.45	-315.31	441.76	0.77	-0.76	1.59
4,109.00	4.84	319.17	4,081.90	316.96	-320.80	450.18	0.65	-0.64	-1.29
4,204.00	4.84	320.23	4,176.56	323.08	-325.99	458.11	0.09	0.00	1.12
4,298.00	4.40	317.06	4,270.25	328.76	-330.98	465.61	0.54	-0.47	-3.37
4,393.00	3.96	315.92	4,365.00	333.79	-335.75	472.51	0.47	-0.46	-1.20

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Survey Report

Company:	OXY USA RMAT	**Local Co-ordinate Reference:**	Well CC 697-08-06B - Slot H
Project:	Garfield County, CO NAD27	**TVD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Site:	Cascade Creek 608-41 Pad	**MD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Well:	CC 697-08-06B	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM-R5000-JanieCooke-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,487.00	5.54	334.82	4,458.68	340.23	-339.94	479.90	2.34	1.68	20.11
4,582.00	5.36	330.60	4,553.25	348.24	-344.07	488.29	0.46	-0.19	-4.44
4,676.00	4.84	324.27	4,646.88	355.29	-348.54	496.30	0.81	-0.55	-6.73
4,771.00	4.22	321.99	4,741.58	361.29	-353.03	503.64	0.68	-0.65	-2.40
4,865.00	4.92	330.95	4,835.28	367.54	-357.12	510.83	1.06	0.74	9.53
4,960.00	4.31	330.34	4,929.97	374.21	-360.86	518.04	0.64	-0.64	-0.64
5,054.00	3.96	326.91	5,023.73	379.99	-364.38	524.51	0.46	-0.37	-3.65
5,149.00	4.31	343.87	5,118.49	386.17	-367.16	530.67	1.33	0.37	17.85
5,243.00	4.31	345.72	5,212.22	392.99	-369.02	536.56	0.15	0.00	1.97
5,338.00	4.22	340.00	5,306.96	399.73	-371.09	542.57	0.46	-0.09	-6.02
5,432.00	4.40	344.49	5,400.69	406.46	-373.24	548.61	0.41	0.19	4.78
5,527.00	2.64	335.43	5,495.51	411.96	-375.12	553.66	1.94	-1.85	-9.54
5,621.00	2.81	331.74	5,589.40	415.96	-377.11	557.79	0.26	0.18	-3.93
5,716.00	1.06	339.92	5,684.35	418.83	-378.52	560.74	1.86	-1.84	8.61
5,810.00	0.97	343.52	5,778.33	420.41	-379.04	562.18	0.12	-0.10	3.83
5,905.00	0.88	336.31	5,873.32	421.85	-379.56	563.52	0.15	-0.09	-7.59
6,000.00	1.06	10.33	5,968.31	423.38	-379.70	564.63	0.62	0.19	35.81
6,094.00	1.58	21.14	6,062.28	425.45	-379.08	565.53	0.61	0.55	11.50
6,189.00	0.18	306.52	6,157.27	426.76	-378.72	566.12	1.62	-1.47	-78.55
6,283.00	0.53	273.12	6,251.27	426.87	-379.28	566.61	0.42	0.37	-35.53
6,378.00	0.79	278.13	6,346.26	426.99	-380.36	567.51	0.28	0.27	5.27
6,472.00	0.97	281.73	6,440.25	427.24	-381.78	568.74	0.20	0.19	3.83
6,567.00	0.18	328.49	6,535.24	427.53	-382.65	569.58	0.90	-0.83	49.22
6,661.00	0.09	162.82	6,629.24	427.59	-382.71	569.66	0.29	-0.10	-176.24
6,756.00	0.09	199.99	6,724.24	427.45	-382.71	569.57	0.06	0.00	39.13
6,850.00	0.53	201.93	6,818.24	426.97	-382.90	569.40	0.47	0.47	2.06
6,945.00	0.88	225.92	6,913.23	426.06	-383.58	569.32	0.47	0.37	25.25
7,039.00	1.06	234.62	7,007.22	425.05	-384.81	569.58	0.25	0.19	9.26
7,134.00	0.53	275.23	7,102.21	424.58	-385.97	570.13	0.78	-0.56	42.75
7,228.00	0.70	256.77	7,196.21	424.49	-386.96	570.82	0.28	0.18	-19.64
7,323.00	0.18	252.55	7,291.20	424.31	-387.67	571.23	0.55	-0.55	-4.44
7,417.00	0.44	226.01	7,385.20	424.02	-388.07	571.34	0.31	0.28	-28.23
7,512.00	0.79	222.14	7,480.20	423.28	-388.77	571.38	0.37	0.37	-4.07
7,606.00	1.14	229.96	7,574.18	422.20	-389.92	571.53	0.40	0.37	8.32
7,701.00	2.11	233.66	7,669.14	420.55	-392.05	572.05	1.03	1.02	3.89
7,795.00	2.64	236.38	7,763.06	418.33	-395.25	572.99	0.58	0.56	2.89
7,890.00	2.81	242.01	7,857.96	416.03	-399.13	574.38	0.33	0.18	5.93
7,984.00	2.99	242.97	7,951.84	413.83	-403.34	576.11	0.20	0.19	1.02
8,079.00	3.08	247.46	8,046.70	411.73	-407.91	578.15	0.27	0.09	4.73
8,173.00	3.08	257.56	8,140.57	410.21	-412.71	580.76	0.58	0.00	10.74
8,267.00	3.61	262.13	8,234.41	409.26	-418.10	584.20	0.63	0.56	4.86
8,362.00	4.04	265.12	8,329.20	408.57	-424.40	588.47	0.50	0.45	3.15
8,456.00	4.04	268.99	8,422.96	408.23	-431.01	593.22	0.29	0.00	4.12

Scientific Drilling International, Inc.

Survey Report

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Project:	Garfield County, CO NAD27	**TVD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Site:	Cascade Creek 608-41 Pad	**MD Reference:**	GL 8407' & RKB 30' @ 8437.00ft (H&P)
Well:	CC 697-08-06B	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM-R5000-JanieCooke-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,550.00	4.31	269.69	8,516.71	408.15	-437.85	598.31	0.29	0.29	0.74
8,645.00	3.78	270.13	8,611.48	408.14	-444.56	603.34	0.56	-0.56	0.46
8,739.00	3.87	268.29	8,705.27	408.05	-450.82	608.00	0.16	0.10	-1.96
8,834.00	3.43	260.46	8,800.07	407.49	-456.83	612.14	0.70	-0.46	-8.24
8,895.00	2.99	254.66	8,860.98	406.76	-460.17	614.17	0.90	-0.72	-9.51
Last Production MWD									
8,950.00	2.99	254.66	8,915.90	406.00	-462.93	615.75	0.00	0.00	0.00
Projection to TD - BHL = 634333.76, 1227613.11									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
175.00	174.99	0.40	-1.28	First Gyro Survey
542.00	540.49	16.99	-24.77	Last Gyro Survey
615.00	612.69	23.65	-33.25	First Surface MWD
2,654.00	2,635.85	205.11	-207.52	Last Surface MWD
2,786.00	2,767.22	215.19	-215.61	First Production MWD
8,895.00	8,860.98	406.76	-460.17	Last Production MWD
8,950.00	8,915.90	406.00	-462.93	Projection to TD
8,950.00	8,915.90	406.00	-462.93	BHL = 634333.76, 1227613.11

Checked By: _____ Approved By: _____ Date: _____